Consolidated Water Use Efficiency 2002 PSP
Proposal Part One:
A. Project Information Form

1. Applying for (select one):	! **(a) Prop 13 Urban Water Conservation Capital Outlay Grant** ! (b) Prop 13 Agricultural Water Conservation Capital Outlay Feasibility Study Grant ! (c) DWR Water Use Efficiency Project	
2. Principal applicant (Organization or affiliation):	**City of Downey**	
3. Project Title:	**Downey Landing Recycled Water Line Project**	
4. Person authorized to sign and submit proposal:	Name, title	**Desi Alvarez** **Director of Public Works**
	Mailing address	**11111 Brookshire Avenue** **Downey, CA 90241-7016**
	Telephone	**(562)904-7102**
	Fax	**(562)904-7296**
	E-Mail	**dalvarez@downeyca.org**
5. Contact person (if different)	Name, title	**Brian Ragland** **Principal Civil Engineer**
	Mailing address	**11111 Brookshire Avenue** **Downey, CA 90241-7016**
	Telephone	**(562)622-3398**
	Fax	**(562)904-7296**
	E-Mail	**bragland@downeyca.org**
6. Funds requested (dollar amount):		**$435,000**
7. Applicant funds pledged (dollar amount):		**$655,000**
8. Total project costs (dollar amount):		**$1,090,000**
9. Estimated total quantifiable project benefits (dollar amount):		**$30,000/Year At Development Build Out**
Percentage of benefit to be accrued by applicant:		**100%**
Percentage of benefit to be accrued by CALFED or Others:		**0%**

Consolidated Water Use Efficiency 2002 PSP
Proposal Part One:
A. Project Information Form (continued)

10. Estimated annual amount of water to be saved (acre-feet): **145 AF**

    Estimated total amount of water to be saved (acre-feed): **2,378 AF**

    Over **20** years.

    Estimated benefits to be realized in terms of water quality, instream flow, other: **Reduction in amount of imported potable water from the Colorado River and CALFED areas.**

11. Duration of project (month/year to month/year): **April, 2002 to July, 2003**

12. State Assembly District where the project is to be conducted: **56th District (Sally Havice)**

13. State Senate District where the project is to be conducted: **27th District (Betty Karnette)**

14. Congressional district(s) where the project is to be conducted: **38th District (Steve Horn)**

15. County where the project is to be conducted: **Los Angeles**

16. Date most recent Urban Water Management Plan submitted To the Department of Water Resources: **July 26, 2001**

17. Type of applicant (select one):
    Prop 13 Urban Grants and Prop 13 Agricultural Feasibility Study Grants:

    ! **(a) city**
    ! (b) county
    ! (c) city and county
    ! (d) joint power authority
    ! (e) other political subdivision of the State, including public water district
    ! (f) incorporated mutual water company

    DWR WUE Projects: the above entities (a) through (f) or: **N/A**

    ! (g) investor-owned utility
    ! (h) non-profit organization
    ! (i) tribe
    ! (j) university
    ! (k) state agency
    ! (l) federal agency

18. Project focus:

    ! (a) agricultural
    ! **(b) urban**

Consolidated Water Use Efficiency 2002 PSP
Proposal Part One:
A. Project Information Form (continued)

19. Project type (select one): Prop 13 Urban Grant or Prop 13 Agricultural Feasibility Study Grant Capital outlay project related to:		! (a) implementation of Urban Best Management Practices ! (b) implementation of Agricultural Efficient Water Management Practices ! (c) implementation of Quantifiable Objectives (include QO numbers) ! **(d) other (specify)** **Recycled Water Distribution Line Extension Project**
DWR WUE Project related to:	**N/A**	! (e) implementation of Urban Best Management Practices ! (f) implementation of Agricultural Efficient Water Management Practices ! (g) implementation of Quantifiable Objectives (include QO number(s)) ! (h) innovative projects (initial investigation of new technologies, methodologies, approaches, or institutional frameworks) ! (i) research or pilot projects ! (j) education or public information programs ! (k) other (specify)
20. Do the actions in this proposal involve physical changes in land use, or potential future changes in land use?		! (a) yes ! **(b) no** If yes, the applicant must complete the CALFED PSP Land Use Checklist found at http://calfed.water.ca.gov/environmental_docs.html and submit it with the proposal.

Downey Landing Development is in compliance with all land use/zoning requirements.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part One
B. Signature Page

By signing below, the official declares the following:

The truthfulness of all representations in the proposal;

The individual signing the form is authorized to submit the proposal on behalf of the applicant; and

The individual signing the form read and understood the conflict of interest and confidentiality section and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant.

_____	Desi Alvarez, Director of Public Works	_____
Signature	Name and title	Date

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
Project Summary

The City of Downey is purposing to extend and connect two eight-inch Central Basin Municipal Water District (CBMWD) recycled water lines to and through the future 160-acre Downey Landing development (formerly known as the NASA/Boeing Site). Two eight-inch distribution branches will extend from the newly constructed loop to the northern and southern areas of the new development. A total of ***9,000 feet*** of PVC recycled water main will be installed upon completion of the project.

The Downey Landing development is located near the center of the City, bounded by Lakewood Boulevard and Clark Avenue to the west, Stewart and Gray Road to the north, Bellflower Boulevard to the east, and Imperial Highway to the south. The master plan for the development includes a 410,000 square foot retail shopping area, a 1,120,000 square foot film studio, over 510,000 square feet of technology and commercial office facilities, a 13 acre park, school and learning center complex, and a thirty-acre hospital and medical office building complex with over 1,000,000 square feet of floor space.

Our goals with regard to the project are to:

- Minimize the need for additional potable water supplies resulting from the total new water demand generated by this new development.
- Bring a reliable recycled water supply to the development by extending and connecting two Central Basin Municipal Water District (CBMWD) recycled water lines.
- Use recycled water to irrigate the landscaped areas within the development and for gray water use for all new retail, technology, commercial, and medical office buildings, which will be dual plumbed.
- Use recycled water in the boilers and cooling towers located in the hospital's central plant facility.
- The new distribution mains will supply recycled water to the Bellflower Boulevard and Lakewood Boulevard street and median improvement projects which are currently under design, and for the median and parkway improvement projects for Imperial Highway and Stewart and Gray Road which will be completed in the next few years.
- Save up to 145 acre-feet of potable water each year through the use of recycled water in and around the development.

The estimated cost for the design and construction of the proposed pipeline improvements is ***$1,090,000***. These costs will be shared on a pro-rated basis between the developers of the retail site, the hospital site, and the City of Downey who is responsible for the development of the remainder of the site. The Central Basin Municipal Water District, who supplies recycled water to the City of Downey and will ultimately own the new pipelines, is providing $220,000 to the project to encourage the use of recycled water. This proposal is asking for a grant of $435,000 to offset the costs that the City of Downey would otherwise incur.

The reduction of over 145 acre-feet of potable water demand resulting from the extension of the existing recycled water lines will benefit not only the City of Downey, but other potable water

providers in the Central Basin, the Metropolitan Water District of Southern California, and the CALFED process.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
A. Scope of Work: Relevance and Importance

RELEVANCE AND IMPORTANCE

1. Nature, Scope and Objectives of the Project

Once completed, the Downey Landing development will occupy 160 acres of land and will include a maximum of approximately 3.7 million square feet of new and existing buildings. The retail businesses are expected to generate approximately 1,000 full time jobs, and the 350 bed hospital and two medical office buildings will employ over 2,000. The technology and commercial office buildings will employ approximately 1,100, and the movie studios will have an average employment of 200. The development is expected to add over 4,300 full time positions to the employment roles of the City.

The total water demand for this development is estimated to be 210 acre-feet per year. Of this demand, 40 acre-feet is generated by on and off-site landscaping, 65 acre-feet is generated by toilets and urinals, and 40 acre-feet is generated by the boilers and cooling towers located at the hospital's central plant. It is the City's intent to minimize the need for additional imported potable water supplies resulting from the total new water demand generated by this new development and the surrounding street improvements.

In order to ensure that recycled water use is maximized at this development, the City included the requirement for dual plumbed buildings and facilities as a mitigation measure in the development's environmental impact report. Also included is the requirement that the developers contribute to the construction of the infrastructure required to bring the recycled water into the site. All current and future developers must meet these requirements in order to receive approval for their proposed improvements. In addition, to encourage the use of recycled water, the City's rate structure for recycled water is 80 percent of the potable water rate.

By bringing recycled water distribution mains into the development, requiring the developers to dual plumb all new buildings, and charging 80 percent of the potable water rate, the City hopes to reduce the imported potable water demand generated by this new development by 145 acre-feet per year.

The City of Downey is proposing to extend and connect two eight-inch Central Basin Municipal Water District (CBMWD) recycled water lines to and through the future 160-acre Downey Landing development. Two eight-inch distribution branches will extend from the newly constructed loop to the northern and southern areas of the new development. A total of 9,000 feet of PVC recycled water main will be installed upon completion of the project.

Due to the large size and varied uses proposed for the Downey Landing, the development construction schedule is slated to begin in May of 2002, and not be completed until May of 2008. In order to install the recycled water system before or during street construction, it is proposed to install the entire recycled water distribution system before the entire recycled water demand

has been established through the construction of all of the buildings, parkways, and landscaped areas. In this way, as new demand generating facilities (buildings, landscaping, and landscaped areas) are constructed, the previously installed distribution mains can be tapped and service lines and meters installed.

2. Statement of Critical Local, Regional, Bay-Delta, State or Federal Water Issues.

CALFED, a partnership of state and federal agencies, has begun implementation of its long-term, plan to restore the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) ecosystem while improving water quality and water supply reliability statewide. In an effort to help implement this plan and provide guidance to local, regional, and state agencies and interested organizations, CALFED has established a number of objectives.

In the Southern California region, a number of agencies and public interest organizations have collaborated to establish the Southern California Water Dialogue. The primary goal of the Dialogue is to ensure the reliability of Southern California's future water supply by identifying means of reducing its current reliance on groundwater and imported water consistent with the CALFED objectives. A summary of these objectives and the applicability of the Downey Landing Recycled Water Line Project (Project) in meeting these objectives are provided in Section D3b and D4d.

As one of the participants of the Southern California Water Dialogue, The Central Basin Municipal Water District (CBMWD) is continually looking for ways in which to reduce reliance on groundwater and imported water. CBMWD is one of four agencies in the surrounding area that purchase and resell tertiary recycled water produced by the County Sanitation Districts of Los Angeles County (CSDLAC). CBMWD has established itself as one of the leaders in the marketing of recycled water, since the establishment of its recycling water distribution system in the early 1990's. The Central Basin Recycled Water Project delivers approximately 4,000 acre-feet of recycled water annually to more than 150 industrial, commercial, and landscape irrigation sites.

According to the their Urban Water Management Plan of November 2000, CBMWD is poised for a continued increase in recycled water demand and marketing opportunities over the next 20 years. The City of Downey, CBMWD, and the other water stakeholders in the Central Basin view the increased use of recycled water as an important step in reducing reliance on groundwater and imported water thereby reducing the vulnerability of potable water supplies in the event of a drought or other emergency.

Likewise, the City of Downey plans to continue increasing its use of recycled water in the hopes of reducing its reliance on other water resources such as the pumping of groundwater and purchasing of CBMWD surface water. The City of Downey currently purchases 750 acre-ft (AF) per year of recycled water from CBMWD. The recycled water is currently being used for

irrigation of greenbelt areas, landscape medians, parks, golf courses, plant nurseries, and schools. The use of recycled water has gained wide support in the community, and the City has identified additional customers within the 160-acre Downey Landing Development who could utilize recycled water to meet some of their water demands.

In an effort to meet federal, state, regional, and local water use objectives, as previously expressed, the City of Downey and CBMWD are proposing to extend and loop two CBMWD recycled water lines to the 160-acre Downey Landing Development (Development). The master plan for this Development includes a retail shopping area, film studios, technology and commercial office facilities, a park, school, museum, and a thirty-acre hospital and medical office building complex. Lakewood Boulevard and Clark Avenue bound the development to the west, Stewart and Gray Road to the north, Bellflower Boulevard to the east, and Imperial Highway to the south.

CBMWD and the City are proposing to use the recycled water to irrigate the landscaped areas within the 160-acre development, for the Bellflower Boulevard and Lakewood Boulevard street and median improvement projects that are currently under design, and future median and parkway improvement projects planned for Imperial Highway and Stewart and Gray Road. Other proposed recycled water uses within the Development include supplying recycled water to the new hospital central plant for use in the cooling towers and boilers, and gray water use for all new retail, technology, and commercial office buildings, which will be dual plumbed. It is estimated that over 145 AF of potable water will be saved each year through the use of recycled water in and around this development.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
B. Scope of Work: Technical/Scientific Merit, Feasibility, Monitoring and Assessment

1. Methods, procedures, and facilities.

Planning and development activities for the Downey Landing development are currently underway. The design of the retail, movie studio and hospital areas is proceeding, and the final parcel maps, street centerlines, rights of way and building locations will be finalized by mid April of 2002. Once the final street layout is available, pipeline locations can be established and final design will begin.

The volumes of reclaimed water demands generated by each developer have been established (See Tables 2B.1.1, 2B.1.2, and 2B.1.3), including the dates when incremental demand will be required (See Table 2B.1.4). The current monthly recycled water demand for the City of Downey and the projected monthly demand with the project has been established (See Table 2B.1.5). CBMWD has reviewed this information and has stated that the recycled water system has adequate flows and pressures to meet the projected demand.

2. Task List and Schedule

The project schedule (See Table 2B.2.1) indicates that final project design is scheduled to begin April, 2002 and that construction of the project is scheduled to begin on March 6, 2003, and be completed by June 26, 2003. The first phase of the project construction schedule is short and aggressive in order to meet the retail center's reclaimed water need date of April 30, 2003. The second phase of the project will begin immediately following the completion of the first phase and will be completed by June 26, 2003.

The quarterly expenditure projection is anticipated to be as follows:

Quarter	Expenditure	Task Descriptions Included
2, 2002	$ 15,000	Final Design
3, 2002	$ 40,000	Final Design
4, 2002	$ 35,000	Final Design
1, 2003	$260,000	Construction
2, 2003	$740,000	Construction
Total	$1,090,000	

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
B. Scope of Work: Technical/Scientific Merit, Feasibility, Monitoring and Assessment (Continued)

3. Monitoring and assessment

The project schedule (Table 2B.2.1) will be utilized to monitor project progress throughout final design, City Council approval, bidding, and construction. Changes to the schedule can be recorded to address problems or changes in the final design or during construction. Microsoft Project will be utilized for all project scheduling with Microsoft Word utilized for all written records and correspondence.

The addition of the incremental demands to the system will be monitored and updates to Table 2B.1.4 will be made to ensure that the projected demands are being met.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
B. Scope of Work: Technical/Scientific Merit, Feasibility, Monitoring and Assessment (Continued)

4. Preliminary Plans and Specifications and Certificate Statement

Project Site Location

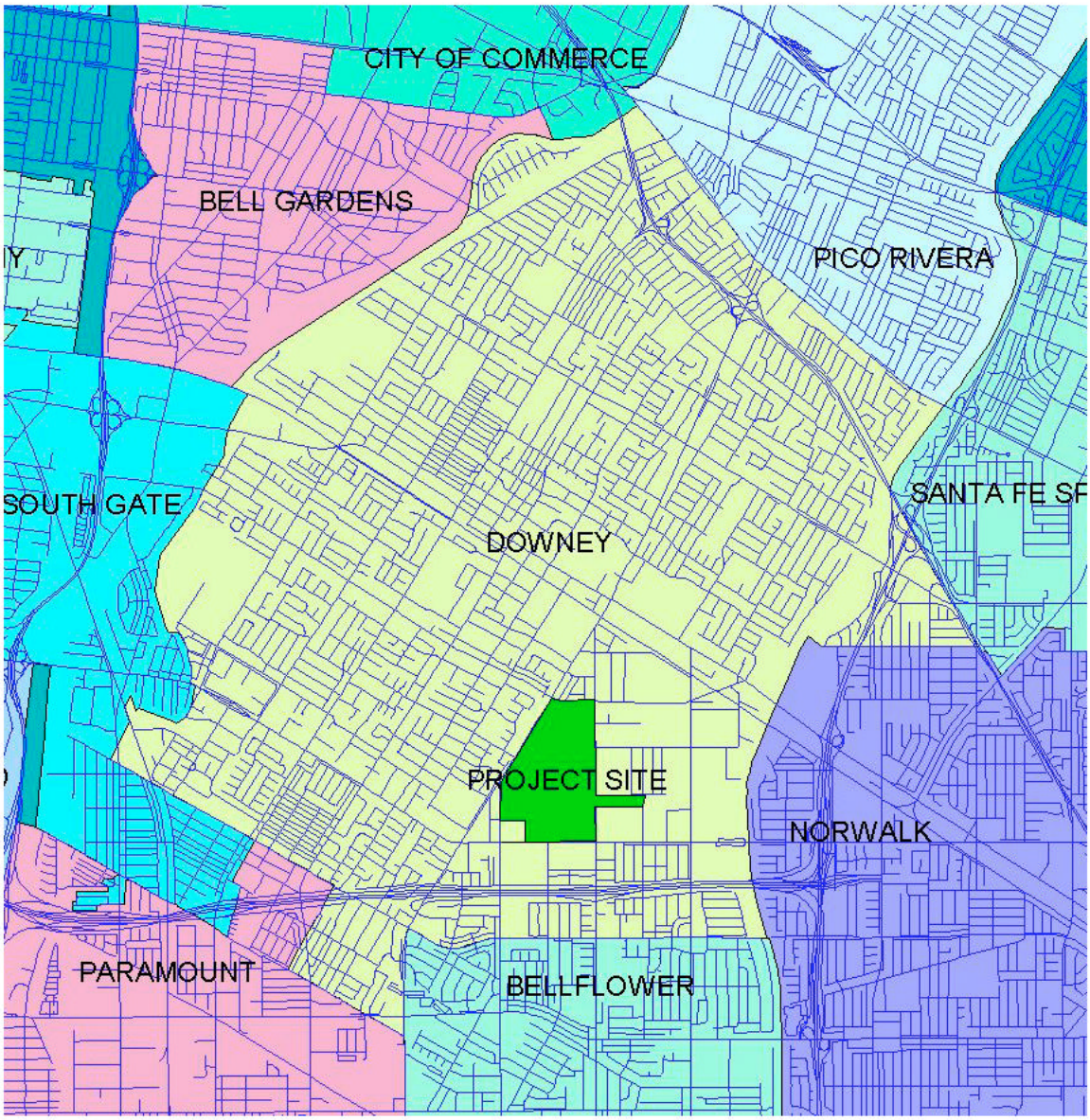


Table 2.B.1.1

DOWNEY LANDING DEVELOPMENT RECLAIMED WATER DEMAND ESTIMATES

ON AND OFF SITE LANDSCAPING COMPONENTS

ON-SITE LANDSCAPING DEMAND COMPONENTS

LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
PROJECT PERIMETER/PARKWAYS	6.0	TURF & TREES	1.25	7.50
PARKING LOTS	4.6	SHRUBS & TREES	1.25	5.75
PROJECT MAIN ENTRANCES	1.3	TURF, SHRUBS & TREES	1.25	1.63
PERIMETER BERM	1.0	TURF & SHRUBS	1.25	1.25
PARK/SCHOOL/LEARNING CENTER	10.0	TURF & TREES	2.00	20.00
TOTAL	22.9	----------	----------	36.13

OFF-SITE LANDSCAPING DEMAND COMPONENTS

LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
LAKEWOOD BOULEVARD	1.0	TURF, SHRUBS & TREES	1.25	1.25
BELLFLOWER BOULEVARD	0.8	SHRUBS	1.25	1.03
IMPERIAL HIGHWAY	0.8	TURF, SHRUBS & TREES	1.25	1.00
STEWART & GRAY ROAD	0.3	SHRUBS	1.25	0.38
TOTAL	2.9	----------	----------	3.65

TOTAL LANDSCAPING DEMAND COMPONENTS

LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
TOTAL LANDSCAPING	25.8	----------	----------	39.78

Table 2.B.1.2

DOWNEY LANDING DEVELOPMENT RECLAIMED WATER DEMAND ESTIMATES

ON-SITE GRAY WATER AND INDUSTRIAL COMPONENTS

LOCATION	SQUARE FOOTAGE	COMPONENTS	WATER USAGE - GAL/DAY/1,000 SF	TOTAL WATER REQ. - A.F./YEAR
FLEX/TECH BUILDINGS	516,200	TOILETS/URINALS	100	39.61
RETAIL BUILDINGS	410,000	TOILETS/URINALS	10	3.15
MEDICAL OFFICE BUILDINGS	292,700	TOILETS/URINALS	100	22.46
HOSPITAL CENTRAL PLANT	---------	COOLING TOWERS & BOILERS	---------	40.00
TOTAL	1,218,900	---------	---------	105.21

\PROP13\CONSERVATION\PROJECTEDGRAYWATERDEMAND

Table 2.B.1.3

CITY OF DOWNEY

RECLAIMED WATER USE BREAKDOWN BY OWNER

DESCRIPTION	CITY AREA AF/YEAR	RETAIL AREA AF/YEAR	HOSPITAL AREA AF/YEAR	TOTAL AF/YEAR
PROJECT PERIMETER PARKWAYS	3.68	3.03	0.79	7.50
PARKING LOTS	2.93	1.21	1.31	5.75
PROJECT MAIN ENTRANCES	1.63	0.00	0.00	1.63
PERIMETER FARM	0.62	0.50	0.13	1.25
PARK/SCHOOL	20.00	0.00	0.00	20.00
OFF-SITE MEDIANS	3.65	0.00	0.00	3.65
TOTAL LANDSCAPING	32.51	4.74	2.53	39.78

DESCRIPTION	CITY AREA AF/YEAR	RETAIL AREA AF/YEAR	HOSPITAL AREA AF/YEAR	TOTAL AF/YEAR
GRAY WATER	39.61	3.15	22.46	65.22

DESCRIPTION	CITY AREA AF/YEAR	RETAIL AREA AF/YEAR	HOSPITAL AREA AF/YEAR	TOTAL AF/YEAR
INDUSTRIAL	0.00	0.00	40.00	40.00

DESCRIPTION	CITY AREA AF/YEAR	RETAIL AREA AF/YEAR	HOSPITAL AREA AF/YEAR	TOTAL AF/YEAR
TOTAL RECLAIMED WATER USE	72.12	7.89	64.99	145.00
PERCENT OF TOTAL USE	50%	5%	45%	100%

Table 2.B.1.4

DOWNEY LANDING RECYCLED WATER PROJECT			
NEW DEMAND PROJECTIONS			
YEAR	QUARTER	NEW DEMAND ON-LINE (AF/YR)	TOTAL DEMAND ON-LINE (AF/YR)
2003	1	0.0	0.0
	2	0.0	0.0
	3	5.0	5.0
	4	20.0	25.0
2004	1	3.0	28.0
	2	1.0	29.0
	3	1.0	30.0
	4	0.4	30.4
2005	1	3.0	33.4
	2	0.0	33.4
	3	1.0	34.4
	4	0.0	34.4
2006	1	0.0	34.4
	2	0.0	34.4
	3	15.0	49.4
	4	0.0	49.4
2007	1	0.0	49.4
	2	0.0	49.4
	3	15.0	64.4
	4	0.0	64.4
2008	1	65.5	129.9
	2	0.0	129.9
	3	15.1	145.0
	4	0.0	145.0
TOTAL	----------	145.0	145.0

Table 2.B.1.5

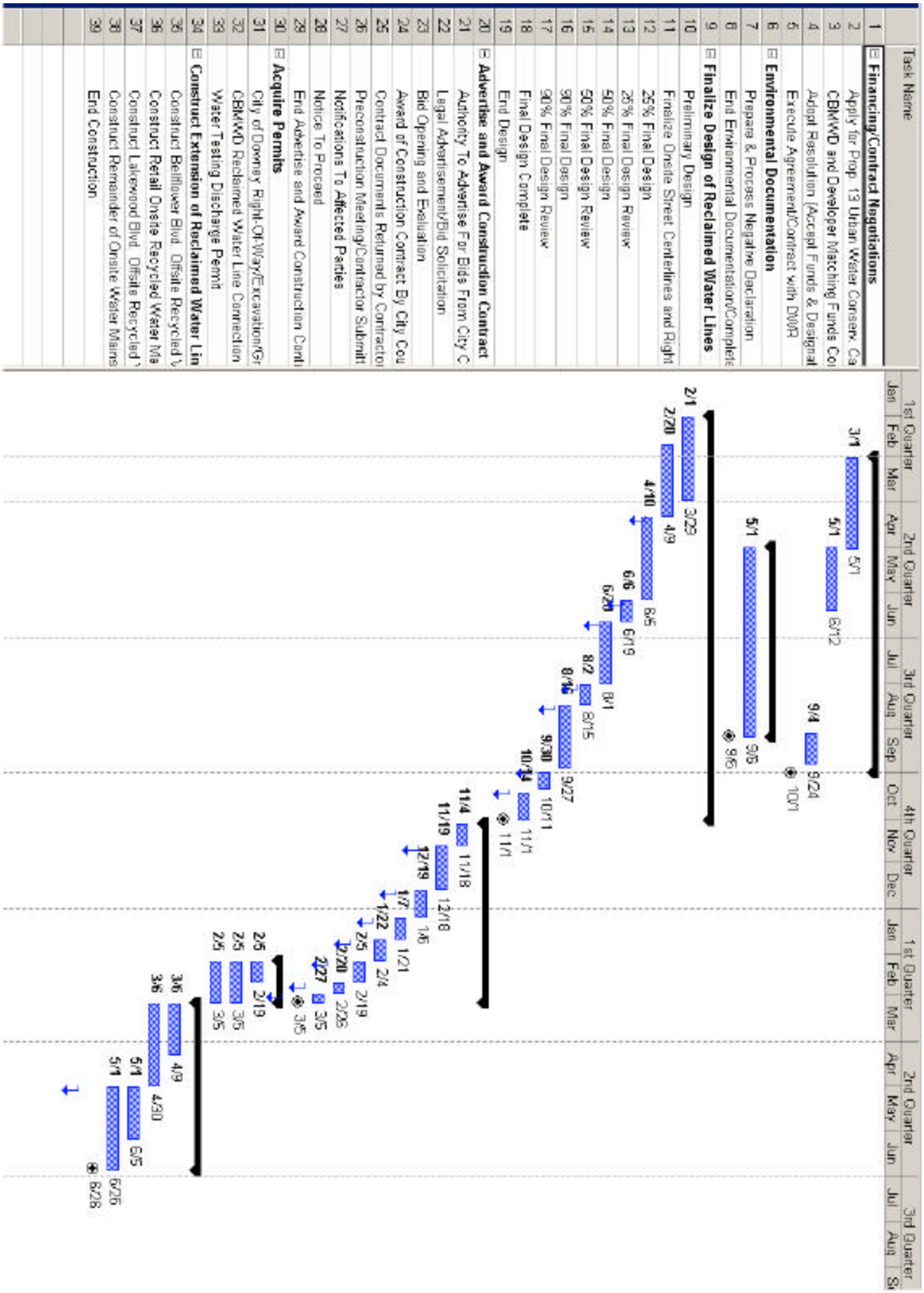
LANDSCAPING	39.78	ACRE-FEET	
GRAY WATER	65.22	ACRE-FEET	
INDUSTRIAL	40.00	ACRE-FEET	

	CURRENT USAGE						ESTIMATED PROJECT DEMANDS				PROJECTED TOTAL CITY DEMAND
MONTH	1998/1999 (acre-feet)	1999/2000 (acre-feet)	2000/2001 (acre-feet)	2001/2002 (acre-feet)	4 YEAR AVG (acre-feet)	AVG. % USED BY MONTH	LANDSCAPING (acre-feet)	GRAY WATER (acre-feet)	INDUSTRIAL (acre-feet)	TOTAL (acre-feet)	(acre-feet)
JULY	106.73	87.17	113.13	100.82	101.81	14.6%	5.82	5.44	3.33	14.59	116.40
AUGUST	99.62	105.79	96.25	104.02	101.52	14.6%	5.80	5.44	3.33	14.57	116.09
SEPTEMBER	75.59	76.00	65.44	90.94	74.49	10.7%	4.25	5.44	3.33	13.03	87.52
OCTOBER	79.19	67.38	56.60	76.76	69.73	10.0%	3.99	5.44	3.33	12.75	82.49
NOVEMBER	38.64	54.30	52.23	37.77	45.74	6.6%	2.61	5.44	3.33	11.38	57.12
DECEMBER	21.28	44.33	36.01	17.65	29.67	4.3%	1.71	5.44	3.33	10.49	40.34
JANUARY	28.73	39.03	13.54	22.34	25.91	3.7%	1.48	5.44	3.33	10.25	36.16
FEBRUARY	11.19	15.75	5.89	25	14.56	2.1%	0.83	5.44	3.33	9.60	24.16
MARCH	24.93	27.96	16.41	30	24.60	3.6%	1.42	5.44	3.33	10.19	34.99
APRIL	28.18	48.97	39.30	45	40.36	5.8%	2.31	5.44	3.33	11.08	51.44
MAY	43.94	68.89	62.71	70	63.14	9.1%	3.61	5.44	3.33	12.39	75.51
JUNE	119.78	75.10	101.45	120	104.09	15.0%	5.95	5.44	3.33	14.72	118.80
TOTAL	693.20	710.37	659.97	731	696.01	100.0%	39.78	65.22	40.00	145.00	841.01

XX - ESTIMATED USAGE

PROPOSED CONSERVATION WATER CONSUMPTION AND PROJECTED USE

Table 2.B.2.1


Task Name
1st Quarter
2nd Quarter
3rd Quarter
4th Quarter
1st Quarter
2nd Quarter
3rd Quarter
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Se
1 Financing/Contract Negotiations
2 Apply for Prop. 13 Urban Water Conserv. Ca
3 CBMWD and Developer Matching Funds Co
4 Adopt Resolution (Accept Funds & Designat
5 Execute Agreement/Contract with DWR
6 Environmental Documentation
7 Prepare & Process Negative Declaration
8 End Environmental Documentation/Complete
9 Finalize Design of Reclaimed Water Lines
10 Preliminary Design
11 Finalize Onsite Street Centerlines and Right
12 25% Final Design
13 25% Final Design Review
14 50% Final Design
15 50% Final Design Review
16 90% Final Design
17 90% Final Design Review
18 Final Design Complete
19 End Design
20 Advertise and Award Construction Contract
21 Authority To Advertise For Bids From City C
22 Legal Advertisement/Bid Solicitation
23 Bid Opening and Evaluation
24 Award of Construction Contract By City Cou
25 Contract Documents Returned by Contractor
26 Preconstruction Meeting/Contractor Submitt
27 Notifications To Affected Parties
28 Notice To Proceed
29 End Advertise and Award Construction Conti
30 Acquire Permits
31 City of Downey Right-Of-Way/Excavation/Gr
32 CBMWD Reclaimed Water Line Connection
33 Water Testing Discharge Permit
34 Construct Extension of Reclaimed Water Lin
35 Construct Bellflower Blvd. Offsite Recycled V
36 Construct Retail Onsite Recycled Water Ma
37 Construct Lakewood Blvd. Offsite Recycled
38 Construct Remainder of Onsite Water Mains
39 End Construction
3/1 5/1 6/12 9/4 9/24 10/1 5/1 9/5 9/6 2/1 2/20 3/29 4/10 4/9 6/6 6/5 6/20 6/19 8/2 8/1 8/15 9/30 9/27 10/14 10/11 11/1 11/1 11/4 11/18 11/19 12/18 12/19 1/6 1/7 1/21 1/22 2/4 2/5 2/19 2/20 2/26 2/27 3/5 3/5 2/5 2/19 2/5 3/5 2/5 3/5 3/6 4/9 3/6 4/30 5/1 6/5 5/1 6/26 6/26

Certification Statement

Engineering Feasibility Statement

I, **Brian Ragland**, a California registered civil engineer, have reviewed the information presented in support of this application. Based on this information, and any other knowledge I have regarding the proposed project, I find that it can be designed, constructed, and operated to accomplish the purpose for which it is planned. There is a sufficient supply of recycled water for the project. The information I have reviewed to document this statement is included.

_____ _____

Signature Date

Stamp

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
C. Qualifications of the Applicants and Cooperators

Please find attached resumes for the following:

Desi Alvarez, City of Downey, Director of Public Works
Brian Ragland, City of Downey, Principal Civil Engineer

Desi M. Alvarez, PE

PROFESSIONAL EXPERIENCE

City of Downey, Downey, CA - 1998 to Present
Director of Public Works

Responsible for planning, organizing, directing and coordinating the City's Public Works program, which includes engineering, traffic engineering, office engineering, maintenance services, utilities, water quality and distribution, water conservation, recycling and the City's Keep Downey Beautiful Program. Develop and supervise the capital improvement program, which includes the construction and maintenance of streets, highways, sewers, storm drains, and public buildings. Responsible for the preparation of reports and presentations to the City Council. Responsible for the administration of the department and budget preparation. Make presentations to the City Council, community based organizations, schools and other public and private bodies as necessary.

City of Glendale, Glendale, CA – 1996 to 1998
City Engineer

Responsible for the organization and management of the City Engineers Office with responsibilities for four Divisions – Design and Construction, Development Services, Environmental Programs, and Administration and Budget. Responsible for the implementation of $175 million capital improvement program. Responsible for the operation of the City's wastewater system, the NPDES storm water program, and administration of the City's landfill.

City of Redondo Beach, Redondo Beach, CA – 1992 to 1996
Director of Public Works/City Engineer

Plan, organize, direct and coordinate the City's Public Works program, which includes engineering, architectural, traffic, transportation, solid waste and maintenance services. Develop and supervise the capital improvement program which includes the construction and maintenance of streets, highways, sewers, storm drains, and public buildings. Developed a comprehensive Sewer Master Plan providing improvements to City's wastewater pumping plants and sewers, and several major storm drain improvement projects. Responsible for the administration of the City's solid waste disposal program, implementation of AB939 programs. Responsible for the preparation of reports and presentations to the City Council. Serve as the key liaison to the City's Traffic and Transportation Commission, Environmental and Public Utilities Commission, and attend and make presentations to the City's Planning Commission, Harbor Commission, and other public and private bodes as necessary.

East Bay Municipal Utility District, Oakland, CA – 1990 to 1992
Manager of Design

Responsible for the planning and design of capital improvement projects at all District facilities including treatment plants, pump stations, hydro-electric plants, reservoirs, pipelines, sewers, recreational areas and maintenance yards. Administered the work of 55 engineers in the following groups: Process Engineering, Civil/Structural, Pipeline, Power Mechanical and Instrumentation Systems, and Corrosion Control.

City of Santa Monica, Santa Monica, CA – 1986 to 1990
City Engineer

Managed the City Engineering Department; responsible for the preparation of plans, specifications and bid documents for all of the City's Capital Projects, managing and administering all construction projects, maintenance of all engineering records, development review for Public Works Improvements required on all private development, surveying and mapping records maintenance. Responsible for preparing reports, attend meetings of and making presentations to the City Council, Planning, Arts, Parks, and Recreation Commissions. Developed a program to expand the City's use of its local ground water supply. Successfully managed the design, bidding and construction of capital projects.

DMA Consulting Engineers, Inc., Marina del Rey, CA – 1982 to 1986
President

Responsible for overseeing operations and management of a consulting engineering firm that specialized in environmental and municipal engineering. Hired personnel, planned and directed projects, and presented clients at public hearings and workshops.

Northern Technical Services, Anchorage, AK – 1980 to 1982
Senior Engineer

Manger and Design Engineer for a wide range of projects including the design of water treatment plants, hydroelectric facilities, water and sewer lines, wastewater disposal facilities, and conducted various studies using a variety of surface and groundwater models.

Tetra Tech, Inc., Pasadena, CA - 1979 to 1980
Civil Engineer

Served as Project Manager/Project Engineer in a variety of projects involving water resources development, wastewater characterization and disposal studies, and drainage improvement. Developed various computer models for hydrologic and hydraulic analysis and a multi-layer ground water basin model.

California State Chico University, Department of Civil Engineering, Chico, CA – 1977 to 1979
Assistant Professor

Responsible for teaching undergraduate courses in fluid mechanics, mechanics of materials, engineering economics, surveying and upper division/graduate level courses in closed conduit hydraulics and open channel hydraulics.

EDUCATION

Loyola University – BS Civil Engineering
UC Davis – MS Civil Engineering

PROFESSIONAL REGISTRATIONS

State of California, Professional Civil Engineer - #30187
State of Arizona, Registered Civil Engineer - #14893

Brian A. Ragland, PE

PROFESSIONAL EXPERIENCE

City of Downey, Downey, CA, 1/2000 to Present
Principal Civil Engineer – Utilities Division

Responsible for all aspects of engineering and field operations for the City's potable water, sanitary sewer and storm drain systems. Annual budget preparation for the Utilities Division. Prepare council memos, reports, and resolutions for presentation to the City Council. Coordinate review of developer, utility and city-generated improvement plans for compliance with division standards and requirements. Responsible for the preparation of RFP's and the management and coordination with engineering consulting firms for potable water and sanitary sewer studies and improvements.

Project and construction management responsibilities for a 18,000 foot long Water Transmission Main. Project management responsibilities for the Caltrans I-105 Freeway Groundwater Beneficial Reuse Study. Project management responsibilities for the Groundwater Master Plan. Responsible for the data conversion of the City's water, sewer and storm system records into the ESRI GIS system from hard copy maps, atlas sheets, and as-built records, and the development and distribution of GIS generated hard copy atlas sheet books.

Long Beach Water Department, Long Beach, CA, 7/90 to 1/2000
Manager, Engineering – Water Supply

Responsible for improvement projects at the department's new $50 million, 62.5 MGD groundwater treatment plant, and the construction, rehabilitation and improvements of water wells, reservoirs, well collection mains, pump stations, MWD turnouts and other facilities. Determined short and long-term schedule for pumping of groundwater (up to 33,000 acre-feet per year) from adjudicated groundwater basin, and purchase of treated water from MWD. Managed and coordinated the operation of the recycled water system with department personnel, CSDLAC, and all customers. Represented the department at the Water Replenishment District of Southern California board and committee meetings.

Manager, Engineering and Planning

Assisted in the management and operation of the Engineering Bureau, including main and service design, surveying, inspection, project development and design, and development of the capital improvement program.

- Capital Improvement Program (CIP)
- Geographic Information System (GIS)
- Specifications

Construction, Operation & Maintenance Bureau Manager

Responsible for overseeing, operating and maintaining three primary field divisions:

- Treatment Plant Division
- Main and Service Construction Division
- Electrical and Mechanical Systems Division

Division Engineer – Engineering Bureau

Directed draftsmen and engineering technicians in the Water and Sewer Main Design section. This included the design of 30,000 feet of water main replacement piping each year, plans and specifications for the large valve replacement program (control valves up to 42" diameter), and plans and specifications for new sanitary sewer lines. Contract administration of a $2.4 million sewer pump station replacement project including all coordination with the design engineer and contractor.

Computer and Geographic Information System (GIS) Coordinator – Engineering Bureau

Responsible for coordinating computer activities with the City's Information Service Bureau, including the selection and acquisition of software and hardware for the department and obtaining and coordinating software training of all employees. Managed implementation of the city's new ESRI GIS system.

Moffatt & Nichol, Engineers – Long Beach, CA, 6/86 to 7/90

Civil Engineering Section Head

Managed design department. Worked with department heads to coordinate workloads and provide support staff as needed. Directed the preparation of project proposals and estimates and presented proposals to prospective clients and agencies. Directed the preparation of plans and specifications for sewer and water line replacement projects and site, roadway, and oilfield improvements.

Kiewit Pacific Co. – Santa Fe Springs, CA, 11/85 to 6/86

Site Civil Engineer

On-site coordination of construction surveying, shop drawings, quality control and monitoring of project progress on a $6.8 million water treatment plant.

Lockheed Aircraft Co. – Burbank, CA, 7/85 to 11/85

Senior Construction Engineer

Coordinated improvement projects within the facilities engineering department.

CF Braun & Co. – Alhambra, CA, 2/81 to 7/85

Civil Discipline Engineer and Underground Piping Materials Coordinator

Responsible for the design of refinery and petrochemical plant site work and underground piping systems, and coordination of all aspects of work with other engineering sections. Directed engineers and designers performing material take-off of underground piping materials on a $2.3 billion refinery project.

EDUCATION

UC Berkeley – BS Civil Engineering
UCLA – Certificate In Construction Engineering & Management

PROFESSIONAL REGISTRATIONS

California Registered Civil Engineer – C35316
California Water Treatment Operator – Grade 3 - #23394
California Water Distribution System Operator – Grade 2 - #7043

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
C. Qualifications of the Applicants and Cooperators

2. Identify and describe the role of any external cooperators that will be used for this project.

The external cooperators for this project can be broken up into two groups. The first group is comprised of the developers of the Downey Landing development. This includes the retail area developer know as the Downey Landing Limited Partnership, Kaiser Hospital who is developing the hospital site, and the City of Downey who is responsible for the development of the movie studio, the park and school site, and the commercial and technology business park.

The second group consists of the Central Basin Municipal Water District (CBMWD). CBMWD supplies reclaimed water throughout the south Los Angeles County area and owns the recycled water transmission and distribution system that supplies recycled water to the City of Downey. The CBMWD will be providing financial support to the project to encourage the development of new recycled water uses. See Section D.2, Cost Sharing, for a more detailed explanation.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs

BENEFITS AND COSTS
BUDGET BREAKDOWN AND JUSTIFICATION

ITEM	DESCRIPTION	COST	JUSTIFICATION
A.	Land Purchase/Easement	$0	
B.	Planning/Design/Engineering	50,000	Final design plans & specifications
C.	Materials/Installation	900,000	Construction contract amount
D.	Structures	0	
E.	Equipment Purchase/Rentals	0	
F.	Environmental Mitigation/Enhancement	0	
G.	Construction/Administration/Overhead	50,000	City staff time and inspection fees
H.	Project/Legal/License Fees	0	
I.	Contingency	90,000	10% of construction contract amount
J.	Other	0	
	TOTAL	$1,090,000	

CONSTRUCTION COST ESTIMATE

ITEM NO.	DESCRIPTION	QUANTITY & UNIT	UNIT	UNIT PRICE	TOTAL PRICE
1	Install 8-inch PVC Bellflower Blvd. and Independence Park offsite recycled water line, including trenching, pipe testing, and any AC and PCC reconstruction as required in Plans and Specs	1,550	LF	90	$139,500
2	Install 8-inch PVC Lakewood Blvd. offsite recycled water line, including trenching, pipe testing, and any AC and PCC reconstruction as required in Plans and Specs	1,300	LF	95	$123,500
3	Install 8-inch onsite recycled water line, including trenching, pipe testing, and any AC and PCC reconstruction as required in Plans and Specs	6,150	LF	95	$584,250
4	Connection to existing 8-inch CI, CBMWD recycled water line	1	EA	1800	$1,800
5	Connection to existing 8-inch PVC, CBMWD recycled water line	1	EA	1400	$1,400
6	Install 8-inch FLxFL class 150 resilient gate valve with valve box and cover per City Std. Dwg. No. 3-W	8	EA	2000	$16,000
7	Install 2-inch air relief valve assemblies	12	EA	700	$8,400
8	Install 2-inch blow-offs	4	EA	900	$3,600
9	Install 8-inch, PVC Tee and thrust block per City Std. No. 7-W	7	EA	300	$2,100
10	Install 8-inch, PVC 90º elbow and thrust block per City Std. No. 7-W	4	EA	300	$1,200
11	Install 8-inch, PVC 45º elbow and thrust block per City Std. No. 7-W	10	EA	300	$3,000
12	Install 8-inch, PVC plug and thrust block per City Std. No. 7-W	5	EA	400	$2,000
13	Pothole all existing utilities prior to any construction and verify existing vertical and horizontal locations	1	LS	------	$5,000
14	Pavement Striping and Markings	1	LS	------	$2,000
15	Traffic Control	1	LS	------	$4,000
16	Surveying	1	LS	------	$2,000
17	Remove Existing and Reconstruct sewer lateral to clear proposed water main per APWA Std. Dwg. No. 223-1*	1	LS	------	$500
	TOTAL COST				$900,250

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs

2. Cost-Sharing

For this project, the developers are required to utilize reclaimed water in the landscape areas, the dual plumbed buildings, and for industrial purposes such as cooling towers and boilers. This is a mitigation measure included in the Downey Landing development environmental impact report. The developers must share in the costs of the extension of the existing recycled water system to the development, and the costs of the distribution system within the development.

CBMWD receives funding for its recycled water program from the Metropolitan Water District of Southern California (MWD) through its Local Resources Program. Per the agreement between CBMWD and MWD, CBMWD can receive up to $250 per acre-foot of recycled water sold until March 31, 2017.

Based on the projected recycled water sales for this project, CBMWD has made a commitment to contribute up to $220,000 towards the expansion and construction activities associated with this project **(See CBMWD Commitment Letter).**

Central Basin Commitment Letter

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs (Continued)

3. Benefit Summary and Breakdown
   A. Quantify project outcomes and benefits

The Downey Landing Recycled Water Line Project would be implemented within the County of Los Angeles, California. The Downey Landing Development lies within the southern portion of the CALFED solution area, and is approximately 400 miles southeast of the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) Region. The project area is located within the Central Groundwater Basin (Central Basin) of the coastal plain of Los Angeles County. Most communities within the Central Basin rely upon groundwater as their primary source of potable water. Imported State Water Project (SWP) water is purchased from Metropolitan Water District of Southern California (MWD) for supplemental water supplies for both direct potable use and recharge purposes. The SWP water originates in the Northern California Bay-Delta area and is delivered through the California Aqueduct to communities in southern California.

MWD delivers an average 1.7 billion gallons of water per day to a 5,200-square mile service area consisting of 26 MWD member agencies. Within the proposed project area, CBMWD is the public agency that wholesales MWD water to 25 cities, mutual water companies, private companies, and investor-owned utilities in southeast Los Angeles County. Annual water demand in the Central Basin is approximately 400,000 AF of which 200,000 AF is pumped from the Central Basin and 200,000 AF is imported MWD water.

CBMWD also supplies imported water used for groundwater replenishment activities and provides the region with recycled/recycled water for municipal, commercial, and industrial use.

Located approximately 400 miles south of the Bay-Delta, the Downey Recycled Water Line Project would not divert water from or otherwise flowing into the San Francisco Bay/Sacramento-San Joaquin Delta, nor would the project area drain directly or indirectly into the Bay-Delta system. However, the proposed project would reduce demand for imported water that originates from the Bay-Delta.

In an effort to meet federal and state (CALFED), regional, and local water use objectives, as previously expressed, the City of Downey and CBMWD are proposing to extend and loop two CBMWD recycled water lines to the 160-acre Downey Landing Development. The amount of recycled water projected to be used by the Downey Landing, and the subsequent reduction in demand for Bay-Delta imported water, totals over 145 AF per year.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs (Continued)

B. For project outcomes and benefits that are not quantifiable, provide a qualitative description of such project outcomes and benefits.

Consistency with CALFED Objectives

Objective: Provide Good Water Quality for all Beneficial Uses.
Wastewater produced within the City of Downey is composed primarily of effluent water generated from the City's high use customers (residential, commercial, and municipal). The quantity of wastewater generated is related to the population and the water use within the corresponding service area. Upon generation, the wastewater is transferred, by way of sewer connections and collection mains, to trunk sewers and interceptors. Downey wastewater is ultimately sent to the Los Coyotes Water Reclamation Plant, operated by the County Sanitation Districts of Los Angeles County (CSDLAC), where it is treated and prepared for reuse as recycled water. The Los Coyotes plant provides primary, secondary, and tertiary treatment, the latter of which is by means of gravity filtration. The recycled water is disinfected with chlorine prior to distribution for reuse. Any recycled water generated from the CSDLAC plants that is not reused, is discharged to the ocean directly or by way of major flood control channels. CSDLAC operates a total of one wastewater treatment plant and six water reclamation plants in the Los Angeles Basin.

The Downey Landing project would help reduce reliance on imported MWD water by using recycled water for purposes such as cooling towers, boilers, landscaping, and gray water use for which potable water would otherwise be used. By reducing reliance on imported MWD water, the Downey Landing Recycled Water Line Project would subsequently preserve the high quality of existing groundwater and imported MWD water for other potable water users. The project would be consistent with this CALFED objective.

Objective: Improve and Increase Aquatic and Terrestrial Habitats and Improve Ecological Functions in the Bay-Delta to Support Sustainable Populations of Diverse and Valuable Plant and Animal Species.

Increasing water demands placed on the Bay-Delta system have resulted in degradation of biological character and ecological functions dependent upon the Bay-Delta. Through the use of recycled water for purposes, which would otherwise require potable water, the proposed project would assist in improving both the biological character and ecological functions of the Bay-Delta system by reducing demand for imported water from the Bay-Delta. This benefit would be significant particularly in dry years, when the Bay-Delta is its most vulnerable.

With implementation of the Downey Landing Recycled Water Line Project, reliance on imported Bay-Delta water during regular and dry water years would be reduced by more than

145 AF. This would be accomplished through the use of over 145 AF of recycled water for purposes such as cooling towers, boilers, landscaping, and gray water use, for which potable water consisting of groundwater or imported Bay-Delta water would otherwise be used should the Project not be implemented.

This reduction in reliance on imported Bay-Delta water would improve both the biological character and ecological functions within the Bay-Delta by allowing water to remain in the system. The project would be consistent with this CALFED objective.

Objective: Reduce the Mismatch between Bay-Delta Water Supplies and Current and Projected Beneficial Uses Dependent on the Bay-Delta System.

Historical droughts have made it apparent that, when possible, conservation measures such as the increased use of recycled water should be implemented in order to preserve the integrity of supplies to the surface water system in the Bay-Delta. The Downey Landing Project would reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses by reducing water demands for imported Bay-Delta system water during regular and dry water years through the use of over 145 AF of recycled water at the Downey Landing Development. The project would be consistent with this CALFED objective.

Objective: Reduce the Risk to Land Use and Associated Economic Activities, Water Supply, Infrastructure and the Ecosystem from Catastrophic Breaching of Delta Levees

The Downey Landing Recycled Water Line Project is not located within close proximity of any delta levees. The proposed project includes the extension and looping of two CBMWD recycled water lines to the 160-acre Downey Landing Development. It would neither reduce nor increase the risk of catastrophic breaching of delta levees. The project would be consistent with this CALFED objective.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs (Continued)

4. Assessment of Costs and Benefits

The proposed supply of reclaimed water for this project is obtained from the CBMWD. The normalized cost of this water is $252 per acre-foot. CBMWD has reported that they have ample year-round supply to meet the projected needs for this project.

The alternate water supply for this project is to utilize MWD water that has been imported from the Colorado River or Central California and treated for use as potable water. The City of Downey is not a direct member agency of MWD and must purchase MWD water through the CBMWD. The projected cost of potable water from this source is $459 per acre-foot.

Table D.4 indicates that a savings of $30,000 per year could be realized when the development is fully built-out and 145 acre-feet of recycled water is used each year. Once the CBMWD construction subsidy is removed from the total project cost, and the remaining Downey Landing development team cost allocations are removed, the project costs associated with the City of Downey is $435,000. Using a six percent discount rate, the yearly project cost to the City is $26,100.

Based on this information, the Benefit/Cost Ratio is 1.15 which demonstrates that the project would be locally cost effective.

Table D.4

DOWNEY LANDING RECYCLED WATER PROJECT
BENEFIT COST ANALYSIS

PROJECTED RECYCLED WATER USE	145	ACRE-FEET/YEAR
COST OF RECYCLED WATER	$252	PER ACRE-FOOT
COST OF CBMWD POTABLE WATER	$459	PER ACRE-FOOT

YEARLY COST OF CBMWD POTABLE WATER

145 AF/YR X $459 PER AF = $66,555

YEARLY COST OF RECYCLED WATER

145 AF/YR X $252 PER AF = $36,540

YEARLY SAVINGS USING RECLAIMED WTER	$30,015

Total Project Cost		$1,090,000
Central Basin Municipal Water District Subsidy		$220,000
Project Cost To Development Team		$870,000
Development Team Cost Allocation		
City of Downey	50%	$435,000
Hospital Developer	45%	$391,500
Retail Center Developer	5%	$43,500
Total	100%	$870,000

City of Downey Yearly Cost

$435,000 X 0.06 = $26,100

Benefit Cost Ratio

Yearly Savings Using Reclaimed Water	$30,015
Yearly Cost To City For Project Development	$26,100

B/C RATIO = 1.15

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs (Continued)

Compile a table showing the present value of the quantified costs and benefits for the applicant, each project beneficiary, CALFED, and any other parties affected by the project. (Non-quantified as well)

Consistency with CALFED Objectives

Objective: Provide Good Water Quality for all Beneficial Uses.

Wastewater produced within the City of Downey is composed primarily of effluent water generated from the City's high use customers (residential, commercial, and municipal). The quantity of wastewater generated is related to the population and the water use within the corresponding service area. Upon generation, the wastewater is transferred, by way of sewer connections and collection mains, to trunk sewers and interceptors. Downey wastewater is ultimately sent to the Los Coyotes Water Reclamation Plant, operated by the County Sanitation Districts of Los Angeles County (CSDLAC), where it is treated and prepared for reuse as recycled water. The Los Coyotes plant provides primary, secondary, and tertiary treatment, the latter of which is by means of gravity filtration. The recycled water is disinfected with chlorine prior to distribution for reuse. Any recycled water generated from the CSDLAC plants that is not reused, is discharged to the ocean directly or by way of major flood control channels. CSDLAC operates a total of one wastewater treatment plant and six water reclamation plants in the Los Angeles Basin.

The Downey Landing project would help reduce reliance on imported MWD water by using recycled water for purposes such as cooling towers, boilers, landscaping, and gray water use for which potable water would otherwise be used.

By reducing reliance on as imported MWD water, the Downey Landing Recycled Water Line Project would subsequently preserve the high quality of existing groundwater and imported MWD water for other potable water users. The project would be consistent with this CALFED objective.

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Increasing water demands placed on the Bay-Delta system have resulted in degradation of biological character and ecological functions dependent upon the Bay-Delta. Through the use of recycled water for purposes, which would otherwise require potable water, the proposed project would assist in improving both the biological character and ecological functions of the Bay-Delta system by reducing demand for imported water from the Bay-Delta. This benefit would be significant particularly in dry years, when the Bay-Delta is its most vulnerable.

Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
D. Benefits and Costs (Continued)

With implementation of the Downey Landing Recycled Water Line Project, reliance on imported Bay-Delta water during regular and dry water years would be reduced by more than 145 AF. This would be accomplished through the use of over 145 AF of recycled water for purposes such as cooling towers, boilers, landscaping, and gray water use, for which potable water consisting of groundwater or imported Bay-Delta water would otherwise be used should the Project not be implemented.

This reduction in reliance on imported Bay-Delta water would improve both the biological character and ecological functions within the Bay-Delta by allowing water to remain in the system. The project would be consistent with this CALFED objective.

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Consolidated Water Use Efficiency 2002 PSP
Proposal Part Two
E. Outreach, Community Involvement and Acceptance

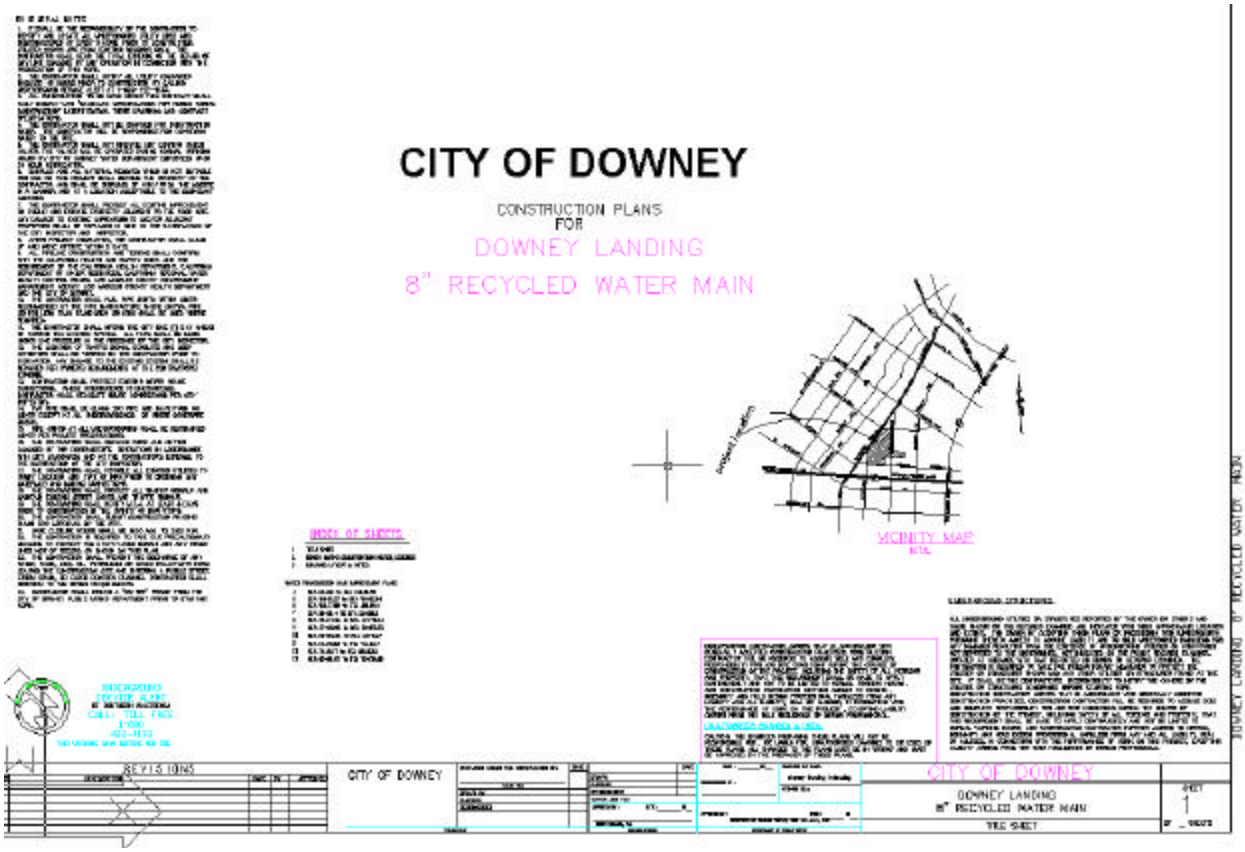
Why recycled water? Simple, recycled water is a cost-effective way to supply continuous water for local non-potable uses. Our focus is to provide a reliable source of water to our 160-Acre Downey Landing site. Providing a continuous source of water is a critical factor in developing this site and a selling point for businesses to relocate their high-tech and other growth industries to our City. Recycled water is a reliable source of continuous water supply, especially during time of drought. In our efforts to conserve water, reduce demands placed on potable water and to provide economic growth to our community, the City of Downey is looking to recycled water as a resource that best serve economic and quality of life goals for the City of Downey.

Supporters of our efforts are mailing letters of support to your office supporting the City of Downey's submittal for funds under the Proposition 13 Urban Water Conservation Capital Outlay Grant Program. The Downey Landing Project supporters are as follows:

- State Senator Betty Karnette – 27th District
- State Assemblymember Sally Havice – 56th District
- Congressional Member Steve Horn – 38th District
- State Assemblymember Tom Calderon – 58th District
- State Assemblymember Marco Antonio Firebaugh – 50th District
- LA County Supervisor Don Knabe – 4th District
- Central Basin Municipal Water District

Central Basin Support Letter

Draft Plans


CITY OF DOWNEY
CONSTRUCTION PLANS
FOR
DOWNEY LANDING
8" RECYCLED WATER MAIN
VICINITY MAP
INDEX OF SHEETS
REVISIONS
CITY OF DOWNEY
DOWNEY LANDING
8" RECYCLED WATER MAIN
TITLE SHEET
SHEET
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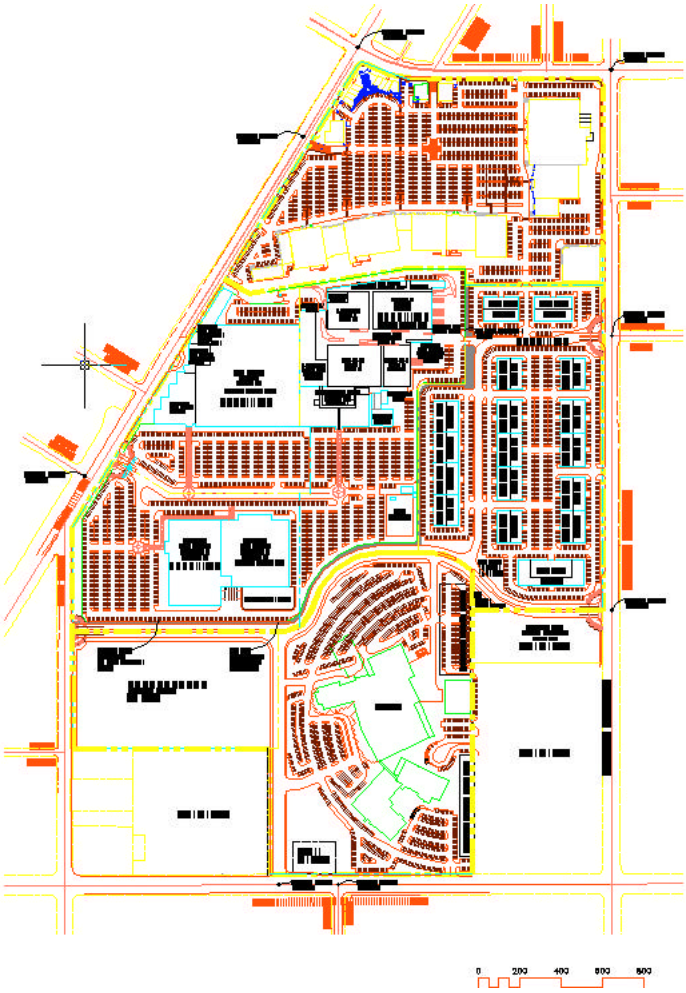

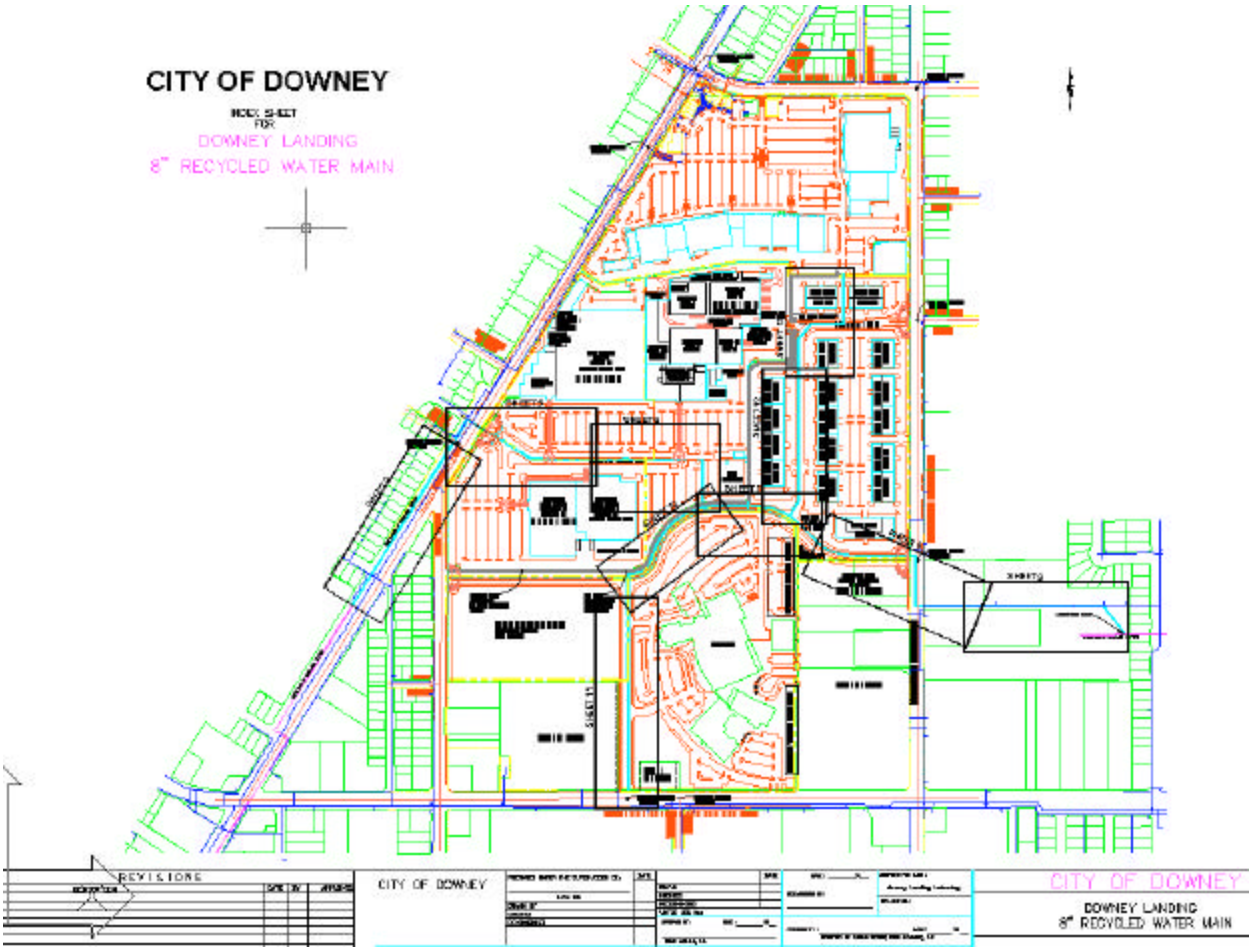
CITY OF DOWNEY
DOWNEY LANDING
8" RECYCLED WATER MAIN
REVISIONS
CITY OF DOWNEY
CITY OF DOWNEY
DOWNEY LANDING
8" RECYCLED WATER MAIN

PROJECT SUMMARY

The City of Downey is purposing to extend and connect two eight-inch Central Basin Municipal Water District (CBMWD) reclaimed water lines to and through the future 160-acre Downey Landing development (formerly known as the NASA/Boeing Site). Two eight-inch distribution branches will extend from the newly constructed loop to the northern and southern areas of the new development. A total of ***9,000 feet*** of PVC reclaimed water main will be installed upon completion of the project.

The Downey Landing development is located near the center of the City, bounded by Lakewood Boulevard and Clark Avenue to the west, Stewart and Gray Road to the north, Bellflower Boulevard to the east, and Imperial Highway to the south. The master plan for the development includes a 410,000 square foot retail shopping area, a 1,120,000 square foot film studio, over 510,000 square feet of technology and commercial office facilities, a 13 acre park, school and learning center complex, and a thirty-acre hospital and medical office building complex with over 1,000,000 square feet of floor space.

Our goals with regard to the project are to:

- Minimize the need for additional potable water supplies resulting from the total new water demand generated by this new development.
- Bring a reliable reclaimed water supply to the development by extending and connecting two Central Basin Municipal Water District (CBMWD) reclaimed water lines.
- Use reclaimed water to irrigate the landscaped areas within the development and for gray water use for all new retail, technology, commercial, and medical office buildings, which will be dual plumbed.
- Use reclaimed water in the boilers and cooling towers located in the hospital's central plant facility.
- The new distribution mains will supply reclaimed water to the Bellflower Boulevard and Lakewood Boulevard street and median improvement projects which are currently under design, and for the median and parkway improvement projects for Imperial Highway and Stewart and Gray Road which will be completed in the next few years.
- Save up to 145 acre-feet of potable water each year through the use of reclaimed water in and around the development.

The estimated cost for the design and construction of the proposed pipeline improvements is ***$1,050,000***. These costs will be shared by the developers of the Downey Landing, the Central Basin Municipal Water District who supply reclaimed water to the City of Downey and will ultimately own the new pipelines, and the City of Downey. This proposal is asking for a grant of ***$350,000*** to offset the costs that the City of Downey would otherwise incur.

The reduction of over 145 acre-feet of potable water demand resulting from the extension of the existing reclaimed water lines will benefit not only the City of Downey, but other potable water providers in the Central Basin, the Metropolitan Water District of Southern California, and the CALFED process.

SCOPE OF WORK

RELEVANCE AND IMPORTANCE

1. Nature, Scope and Objectives of the Project

Once completed, the Downey Landing development will occupy 160 acres of land and will include a maximum of approximately 3.7 million square feet of new and existing buildings. The retail businesses are expected to generate approximately 1,000 full time jobs, and the 350 bed hospital and two medical office buildings will employ over 2,000. The technology and commercial office buildings will employ approximately 1,100, and the movie studios will have an average employment of 200. The development is expected to add over 4,300 full time positions to the employment roles of the City.

The total water demand for this development is estimated to be 210 acre-feet per year. Of this demand, 40 acre-feet is generated by on and off-site landscaping, 65 acre-feet is generated by toilets and urinals, and 40 acre-feet is generated by the boilers and cooling towers located at the hospital's central plant. It is the City's intent to minimize the need for additional potable water supplies resulting from the total new water demand generated by this new development and the surrounding street improvements.

In order to ensure that reclaimed water use is maximized at this development, the City included the requirement for dual plumbed buildings and facilities as a mitigation measure in the development's environmental impact report. Also included is the requirement that the developers contribute to the construction of the infrastructure required to bring the reclaimed water into the site. All current and future developers must meet these requirements in order to receive approval for their proposed improvements. In addition, the reclaimed water rate charged by the City is 80 percent of the potable water rate.

By bringing reclaimed water distribution mains into the development, requiring the developers to dual plumb all new buildings, and charging 80 percent of the potable water rate, the City hopes to reduce the potable water demand generated by this new development by 145 acre-feet per year.

The City of Downey is proposing to extend and connect two eight-inch Central Basin Municipal Water District (CBMWD) reclaimed water lines to and through the future 160-acre Downey Landing development. Two eight-inch distribution branches will extend from the newly constructed loop to the northern and southern areas of the new development. A total of 9,000 feet of PVC reclaimed water main will be installed upon completion of the project.

Due to the large size and varied uses proposed for the Downey Landing, the development construction schedule is slated to begin in May of 2002, and not be completed until May of 2008. In order to install the reclaimed water system before or during street construction, it is proposed to install the entire reclaimed water distribution system before the entire reclaimed water demand has been established through the construction of all of the buildings, parkways, and landscaped areas. In this way, as new demand generating facilities (buildings, landscaping, and landscaped areas) are

constructed, the previously installed distribution mains can be tapped and service lines and meters installed.

A2. Statement of Critical Local, Regional, Bay-Delta, State or Federal Water Issues.

CALFED, a partnership of state and federal agencies, has begun implementation of its long-term, plan to restore the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) ecosystem while improving water quality and water supply reliability statewide. In an effort to help implement this plan and provide guidance to local, regional, and state agencies and interested organizations, CALFED has established a number of objectives.

In the Southern California region, a number of agencies and public interest organizations have collaborated to establish the Southern California Water Dialogue. The primary goal of the Dialogue is to ensure the reliability of Southern California's future water supply by identifying means of reducing its current reliance on groundwater and imported water consistent with the CALFED objectives. A summary of these objectives and the applicability of the Downey Landing Reclaimed Water Line Project (Project) in meeting these objectives are provided in Section D3b and D4d.

As one of the participants of the Southern California Water Dialogue, The Central Basin Municipal Water District (CBMWD) is continually looking for ways in which to reduce reliance on groundwater and imported water. CBMWD is one of four agencies in the surrounding area that purchase and resell tertiary recycled water produced by the County Sanitation Districts of Los Angeles County (CSDLAC). CBMWD has established itself as one of the leaders in the marketing of recycled water, since the establishment of its recycling water distribution system in the early 1990's. The Central Basin Recycled Water Project delivers approximately 4,000 acre-feet of reclaimed water annually to more than 150 industrial, commercial, and landscape irrigation sites.

According to the their Urban Water Management Plan of November 2000, CBMWD is poised for a continued increase in recycled water demand and marketing opportunities over the next 20 years. The City of Downey, CBMWD, and the other water stakeholders in the Central Basin view the increased use of recycled water as an important step in reducing reliance on groundwater and imported water thereby reducing the vulnerability of potable water supplies in the event of a drought or other emergency.

Likewise, the City of Downey plans to continue increasing its use of recycled water in the hopes of reducing its reliance on other water resources such as the pumping of groundwater and purchasing of CBMWD surface water. The City of Downey currently purchases 750 acre-ft (AF) per year of recycled water from CBMWD. The recycled water is currently being used for irrigation of greenbelt areas, landscape medians, parks, golf courses, plant nurseries, and schools. The use of recycled water has gained wide support in the community, and the City has identified additional customers within the 160-acre Downey Landing Development who would like to use recycled water to meet some of their water demands.

In an effort to meet federal, state, regional, and local water use objectives, as previously expressed, the City of Downey and CBMWD are proposing to extend and loop two CBMWD reclaimed water lines to the 160-acre Downey Landing Development (Development). The

master plan for this Development includes a retail shopping area, film studios, technology and commercial office facilities, a park, school, museum, and a thirty-acre hospital and medical office building complex. Lakewood Boulevard and Clark Avenue bound the development to the west, Stewart and Gray Road to the north, Bellflower Boulevard to the east, and Imperial Highway to the south.

CBMWD and the City are proposing to use the reclaimed water to irrigate the landscaped areas within the 160-acre development, for the Bellflower Boulevard and Lakewood Boulevard street and median improvement projects that are currently under design, and future median and parkway improvement projects planned for Imperial Highway and Stewart and Gray Road. Other proposed reclaimed water uses within the Development include supplying reclaimed water to the new hospital central plant for use in the cooling towers and boilers, and gray water use for all new retail, technology, and commercial office buildings, which will be dual plumbed. It is estimated that over 145 AF of potable water will be saved each year through the use of reclaimed water in and around this development.

Benefits and Costs

D3a.

The Downey Landing Reclaimed Water Line Project would be implemented within the County of Los Angeles, California. The Downey Landing Development lies within the southern portion of the CALFED solution area, and is approximately 400 miles southeast of the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) Region (Figure XX). The project area is located within the Central Groundwater Basin (Central Basin) of the coastal plain of Los Angeles County. Most communities within the Central Basin rely upon groundwater as their primary source of potable water. Imported State Water Project (SWP) water is purchased from Metropolitan Water District of Southern California (MWD) for supplemental water supplies for both direct potable use and recharge purposes. The SWP water originates in the Northern California Bay-Delta area and is delivered through the California Aqueduct to communities in southern California.

MWD delivers an average 1.7 billion gallons of water per day to a 5,200-square mile service area consisting of 26 MWD member agencies. Within the proposed project area, CBMWD is the public agency that wholesales MWD water to 25 cities, mutual water companies, private companies, and investor-owned utilities in southeast Los Angeles County. Annual water demand in the Central Basin is approximately 400,000 AF of which 200,000 AF is pumped from the Central Basin and 200,000 AF is imported MWD water.

CBMWD also supplies imported water used for groundwater replenishment activities and provides the region with recycled/reclaimed water for municipal, commercial, and industrial use.

Located approximately 400 miles south of the Bay-Delta, the Downey Reclaimed Water Line Project would not divert water from or otherwise flowing into the San Francisco Bay/Sacramento-San Joaquin Delta, nor would the project area drain directly or indirectly into the Bay-Delta system. However, the proposed project would reduce demand for imported water that originates from the Bay-Delta.

In an effort to meet federal and state (CALFED), regional, and local water use objectives, as previously expressed, the City of Downey and CBMWD are proposing to extend and loop two

CBMWD reclaimed water lines to the 160-acre Downey Landing Development. The amount of recycled water projected to be used by the Downey Landing, and the subsequent reduction in demand for Bay-Delta imported water, totals over 145 AF per year.

D3b.

Consistency with CALFED Objectives

Objective: Provide Good Water Quality for all Beneficial Uses.

Wastewater produced within the City of Downey is composed primarily of effluent water generated from the City's high use customers (residential, commercial, and municipal). The quantity of wastewater generated is related to the population and the water use within the corresponding service area. Upon generation, the wastewater is transferred, by way of sewer connections and collection mains, to trunk sewers and interceptors. Downey wastewater is ultimately sent to the Los Coyotes Water Reclamation Plant, operated by the County Sanitation Districts of Los Angeles County (CSDLAC), where it is treated and prepared for reuse as recycled water. The Los Coyotes plant provides primary, secondary, and tertiary treatment, the latter of which is by means of gravity filtration. The recycled water is disinfected with chlorine prior to distribution for reuse. Any reclaimed water generated from the CSDLAC plants that is not reused, is discharged to the ocean directly or by way of major flood control channels. CSDLAC operates a total of one wastewater treatment plant and six water reclamation plants in the Los Angeles Basin.

The Downey Landing project would help reduce reliance on groundwater as well as imported MWD water by using reclaimed water for purposes such as cooling towers, boilers, landscaping, and gray water use for which potable water would otherwise be used.
Maintaining groundwater of high quality is extremely important to Central Basin consumers, for whom groundwater is their main water supply. By reducing reliance on groundwater as well as imported MWD water, the Downey Landing Reclaimed Water Line Project would subsequently preserve the high quality of existing groundwater and imported MWD water for other potable water users. The project would be consistent with this CALFED objective.

Objective: Improve and Increase Aquatic and Terrestrial Habitats and Improve Ecological Functions in the Bay-Delta to Support Sustainable Populations of Diverse and Valuable Plant and Animal Species.

Increasing water demands placed on the Bay-Delta system have resulted in degradation of biological character and ecological functions dependent upon the Bay-Delta. Through the use of recycled water for purposes, which would otherwise require potable water, the proposed project would assist in improving both the biological character and ecological functions of the Bay-Delta system by reducing demand for imported water from the Bay-Delta. This benefit would be significant particularly in dry years, when the Bay-Delta is its most vulnerable.

With implementation of the Downey Landing Reclaimed Water Line Project, reliance on imported Bay-Delta water during regular and dry water years would be reduced by more than 145 AF. This would be accomplished through the use of over 145 AF of recycled water for purposes such as cooling towers, boilers, landscaping, and gray water use, for which potable water consisting of groundwater or imported Bay-Delta water would otherwise be used should the Project not be implemented.

This reduction in reliance on imported Bay-Delta water would improve both the biological character and ecological functions within the Bay-Delta by allowing water to remain in the system. The project would be consistent with this CALFED objective.

Objective: Reduce the Mismatch between Bay-Delta Water Supplies and Current and Projected Beneficial Uses Dependent on the Bay-Delta System.

Historical droughts have made it apparent that, when possible, conservation measures such as the increased use of recycled water should be implemented in order to preserve the integrity of supplies to the surface water system in the Bay-Delta. The Downey Landing Project would reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses by reducing water demands for imported Bay-Delta system water during regular and dry water years through the use of over 145 AF of recycled water at the Downey Landing Development. The project would be consistent with this CALFED objective.

Objective: Reduce the Risk to Land Use and Associated Economic Activities, Water Supply, Infrastructure and the Ecosystem from Catastrophic Breaching of Delta Levees

The Downey Landing Reclaimed Water Line Project is not located within close proximity of any delta levees. The proposed project includes the extension and looping of two CBMWD reclaimed water lines to the 160-acre Downey Landing Development. It would neither reduce nor increase the risk of catastrophic breaching of delta levees. The project would be consistent with this CALFED objective.

D4d.

Consistency with CALFED Objectives

Objective: Provide Good Water Quality for all Beneficial Uses.

Wastewater produced within the City of Downey is composed primarily of effluent water generated from the City's high use customers (residential, commercial, and municipal). The quantity of wastewater generated is related to the population and the water use within the corresponding service area. Upon generation, the wastewater is transferred, by way of sewer connections and collection mains, to trunk sewers and interceptors. Downey wastewater is ultimately sent to the Los Coyotes Water Reclamation Plant, operated by the County Sanitation Districts of Los Angeles County (CSDLAC), where it is treated and prepared for reuse as recycled water. The Los Coyotes plant provides primary, secondary, and tertiary treatment, the latter of which is by means of gravity filtration. The recycled water is disinfected with chlorine prior to distribution for reuse. Any reclaimed water generated from the CSDLAC plants that is not reused, is discharged to the ocean directly or by way of major flood control channels. CSDLAC operates a total of one wastewater treatment plant and six water reclamation plants in the Los Angeles Basin.

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TECHNICAL/SCIENTIFIC MERIT, FEASIBILITY, MONITORING AND ASSESSMENT

1. Methods, Pprocedures, and Facilities

F36 =

LANDSCAPING	39.78	ACRE-FEET
GRAY WATER	65.22	ACRE-FEET
INDUSTRIAL	40.00	ACRE-FEET

	CURRENT USAGE						ESTIMATED PROJECT DEMANDS				PROJECTED TOTAL CITY DEMAND
MONTH	1998\1999 (acre-feet)	1999\2000 (acre-feet)	2000\2001 (acre-feet)	2001\2002 (acre-feet)	4 YEAR AVG. (acre-feet)	AVG. % USED BY MONTH	LANDSCAPING (acre-feet)	GRAY WATER (acre-feet)	INDUSTRIAL (acre-feet)	TOTAL (acre-feet)	(acre-feet)
JULY	106.13	87.17	113.13	100.82	101.81	14.6%	5.82	5.44	3.33	14.59	116.40
AUGUST	99.62	106.19	96.26	104.02	101.52	14.6%	5.80	5.44	3.33	14.57	116.09
SEPTEMBER	75.59	76.00	65.44	80.94	74.49	10.7%	4.26	5.44	3.33	13.03	87.52
OCTOBER	79.19	67.38	55.60	76.76	69.73	10.0%	3.99	5.44	3.33	12.75	82.49
NOVEMBER	38.64	54.30	52.23	37.77	45.74	6.6%	2.61	5.44	3.33	11.38	57.12
DECEMBER	21.28	44.33	36.01	17.85	29.87	4.3%	1.71	5.44	3.33	10.48	40.34
JANUARY	28.73	39.03	13.54	22.34	25.91	3.7%	1.48	5.44	3.33	10.25	36.16
FEBRUARY	11.19	15.15	6.89	25	14.56	2.1%	0.83	5.44	3.33	9.60	24.16
MARCH	24.93	27.86	16.41	30	24.80	3.6%	1.42	5.44	3.33	10.19	34.99
APRIL	28.18	48.97	39.30	45	40.36	5.8%	2.31	5.44	3.33	11.08	51.44
MAY	49.94	68.89	63.71	70	63.14	9.1%	3.61	5.44	3.33	12.38	75.51
JUNE	119.78	75.10	101.45	120	104.08	15.0%	5.95	5.44	3.33	14.72	118.80
TOTAL	683.20	710.37	659.97	731	696.01	100.0%	39.78	65.22	40.00	145.00	841.01

XX - ESTIMATED USAGE

\PROP13\CONSERVATION\WATERCONSUMPTIONANDPROJECTEDUSE

H10 =

DOWNEY LANDING DEVELOPMENT RECLAIMED WATER DEMAND ESTIMATES

ON-SITE GRAY WATER AND INDUSTRIAL COMPONENTS

LOCATION	SQUARE FOOTAGE	COMPONENTS	WATER USAGE - GAL/DAY/1,000 SF	TOTAL WATER REQ. - A.F./YEAR
FLEX/TECH BUILDINGS	516,200	TOILETS/URINALS	100	39.61
RETAIL BUILDINGS	410,000	TOILETS/URINALS	10	3.15
MEDICAL OFFICE BUILDINGS	292,700	TOILETS/URINALS	100	22.46
HOSPITAL CENTRAL PLANT	----------	COOLING TOWERS & BOILERS	----------	40.00
TOTAL	1,218,900	----------	----------	105.21

\PROP13\CONSERVATION\PROJECTEDGRAYWATERDEMAND

DESCRIPTION	CITY AREA AF/YEAR	RETAIL AREA AF/YEAR	HOSPITAL AREA AF/YEAR	TOTAL AF/YEAR
INDUSTRIAL	0.00	0.00	40.00	40.00

DESCRIPTION	CITY AREA AF/YEAR	RETAIL AREA AF/YEAR	HOSPITAL AREA AF/YEAR	TOTAL AF/YEAR
TOTAL RECLAIMED WATER USE	72.12	7.89	64.99	145.00
PERCENT OF TOTAL USE	50%	5%	45%	100%

\PROP13\CONSERVATION\BREAKDOWNBYOWNER

	A	B	C	D	E
12	TOTAL	22.9	----------	----------	36.13
13					

OFF-SITE LANDSCAPING DEMAND COMPONENTS

16	LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
17	LAKEWOOD BOULEVARD	1.0	TURF, SHRUBS & TREES	1.25	1.25
18	BELLFLOWER BOULEVARD	0.8	SHRUBS	1.25	1.03
19	IMPERIAL HIGHWAY	0.8	TURF, SHRUBS & TREES	1.25	1.00
20	STEWART & GRAY ROAD	0.3	SHRUBS	1.25	0.38
21	TOTAL	2.9	----------	----------	3.65
22					

TOTAL LANDSCAPING DEMAND COMPONENTS

26	LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
27	TOTAL LANDSCAPING	25.8	----------	----------	39.78
28					
29	\PROP13\CONSERVATION\PROJECTEDLANDSCAPEWATERDEMAND				
30					
31					
32					
33					

A30 =

DOWNEY LANDING DEVELOPMENT RECLAIMED WATER DEMAND ESTIMATES

ON AND OFF SITE LANDSCAPING COMPONENTS

ON-SITE LANDSCAPING DEMAND COMPONENTS

LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
PROJECT PERIMETER/PARKWAYS	6.0	TURF & TREES	1.25	7.50
PARKING LOTS	4.6	SHRUBS & TREES	1.25	5.75
PROJECT MAIN ENTRANCES	1.3	TURF, SHRUBS & TREES	1.25	1.63
PERIMETER BERM	1.0	TURF & SHRUBS	1.25	1.25
PARK/SCHOOL/LEARNING CENTER	10.0	TURF & TREES	2.00	20.00
TOTAL	22.9	----------	----------	36.13

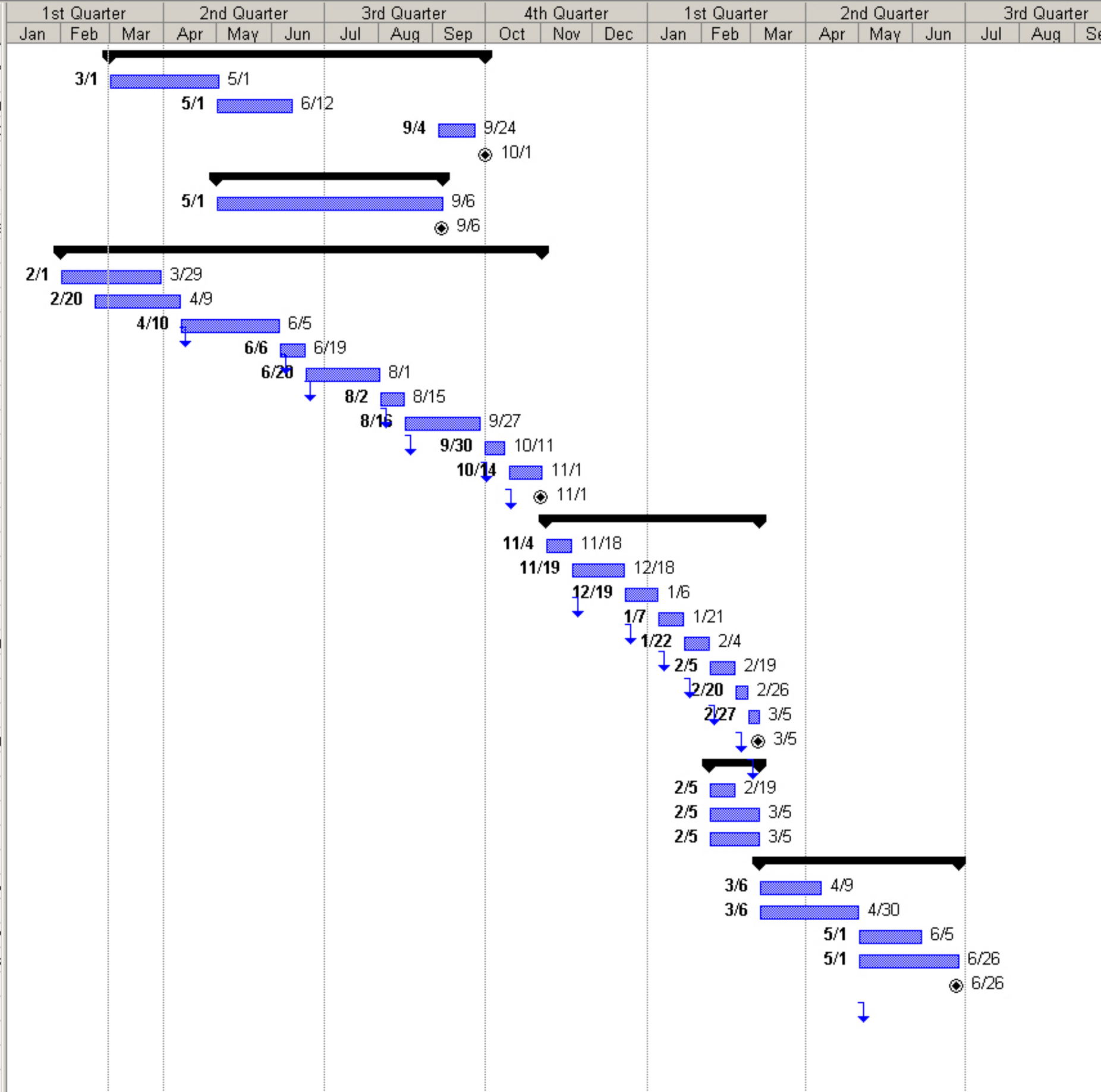
OFF-SITE LANDSCAPING DEMAND COMPONENTS

LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
LAKEWOOD BOULEVARD	1.0	TURF, SHRUBS & TREES	1.25	1.25
BELLFLOWER BOULEVARD	0.8	SHRUBS	1.25	1.03
IMPERIAL HIGHWAY	0.8	TURF, SHRUBS & TREES	1.25	1.00
STEWART & GRAY ROAD	0.3	SHRUBS	1.25	0.38
TOTAL	2.9	----------	----------	3.65

TOTAL LANDSCAPING DEMAND COMPONENTS

LOCATION/USE	ACREAGE	LANDSCAPING COMPONENTS	WATER USAGE - A.F./ACRE/YEAR	TOTAL WATER REQ. - A.F./YEAR
TOTAL LANDSCAPING	25.8	----------	----------	39.78

	Task Name
1	**Financing/Contract Negotiations**
2	Apply for Prop. 13 Urban Water Conserv. Ca
3	CBMWD and Developer Matching Funds Co
4	Adopt Resolution (Accept Funds & Designat
5	Execute Agreement/Contract with DWR
6	**Environmental Documentation**
7	Prepare & Process Negative Declaration
8	End Environmental Documentation/Complete
9	**Finalize Design of Reclaimed Water Lines**
10	Preliminary Design
11	Finalize Onsite Street Centerlines and Right
12	25% Final Design
13	25% Final Design Review
14	50% Final Design
15	50% Final Design Review
16	90% Final Design
17	90% Final Design Review
18	Final Design Complete
19	End Design
20	**Advertise and Award Construction Contract**
21	Authority To Advertise For Bids From City C
22	Legal Advertisement/Bid Solicitation
23	Bid Opening and Evaluation
24	Award of Construction Contract By City Cou
25	Contract Documents Returned by Contracto
26	Preconstruction Meeting/Contractor Submitt
27	Notifications To Affected Parties
28	Notice To Proceed
29	End Advertise and Award Construction Cont
30	**Acquire Permits**
31	City of Downey Right-Of-Way/Excavation/Gr
32	CBMWD Reclaimed Water Line Connection
33	Water Testing Discharge Permit
34	**Construct Extension of Reclaimed Water Lin**
35	Construct Bellflower Blvd. Offsite Recycled V
36	Construct Retail Onsite Recycled Water Ma
37	Construct Lakewood Blvd. Offsite Recycled
38	Construct Remainder of Onsite Water Mains
39	End Construction



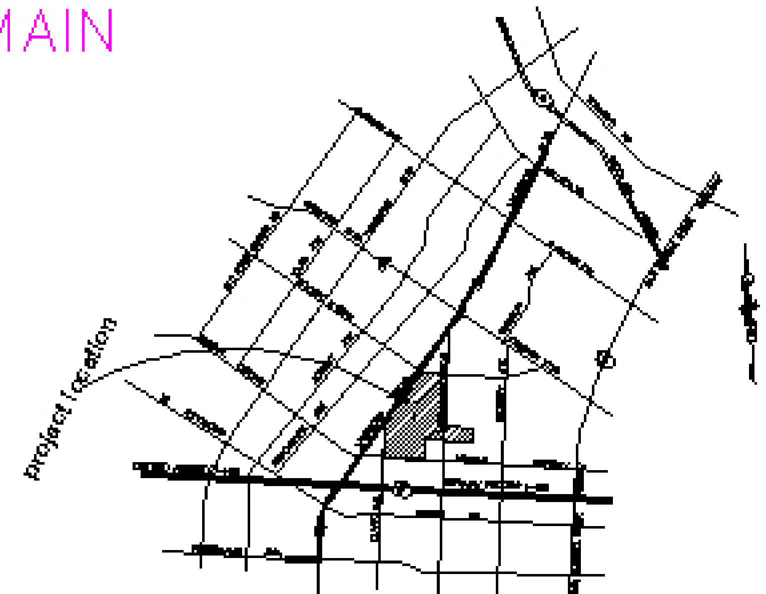
GENERAL NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY AND LOCATE ALL UNDERGROUND UTILITY LINES AND SUBSTRUCTURES OF EVERY NATURE PRIOR TO CONSTRUCTION. UTILITIES SHOWN ARE FROM EXISTING RECORDS ONLY. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF THE REPAIR OF ANY LINE DAMAGED BY ANY OPERATION IN CONNECTION WITH THE PROSECUTION OF THIS WORK.
2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED 48 HOURS PRIOR TO CONSTRUCTION BY CALLING UNDERGROUND SERVICE ALERT AT 1-800-422-4133.
3. ALL CONSTRUCTION TO BE DONE UNDER THIS CONTRACT SHALL FULLY COMPLY WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" LATEST EDITION. THESE DRAWINGS AND CONTRACT SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOT BE CHARGED FOR CONSTRUCTION WATER. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONVEYING WATER TO THE SITE.
5. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES. THE VALVES WILL BE OPERATED DURING NORMAL WORKING HOURS BY CITY OF DOWNEY WATER DEPARTMENT EMPLOYEES UPON 24 HOUR NOTIFICATION.
6. SURPLUS AND ALL MATERIAL REMOVED WHICH IS NOT SUITABLE FOR USE ON THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOBSITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO THE COGNIZANT AGENCIES.
7. THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENT ON PUBLIC AND PRIVATE PROPERTY ADJACENT TO THE WORK SITE. ANY DAMAGE TO EXISTING IMPROVEMENTS AND/OR ADJACENT PROPERTIES SHALL BE REPLACED IN KIND TO THE SATISFACTION OF THE CITY INSPECTOR AND INSPECTOR.
8. AFTER PROJECT COMPLETION, THE CONTRACTOR SHALL CLEAN UP AND MOVE OFFSITE WITHIN 5 DAYS.
9. ALL PIPELINE CONSTRUCTION AND TESTING SHALL CONFORM WITH THE CALIFORNIA HEALTH AND SAFETY CODE AND THE REQUIREMENT OF THE CALIFORNIA HEALTH DEPARTMENT, CALIFORNIA DEPARTMENT OF WATER RESOURCES, CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, LOS ANGELES COUNTY ENVIRONMENT MANAGEMENT AGENCY, LOS ANGELES COUNTY HEALTH DEPARTMENT AND THE CITY OF DOWNEY.
10. THE CONTRACTOR SHALL PULL PIPE JOINTS WITHIN LIMITS RECOMMENDED BY THE PIPE MANUFACTURE WHERE SHOWN. PIPE LENGTH LESS THAN STANDARDS LENGTHS SHALL BE USED WHERE REQUIRED.
11. THE CONTRACTOR SHALL INFORM THE CITY ONE (1) DAY AHEAD OF TAPPING THE EXISTING SYSTEM. ALL TAPS SHALL BE MADE UNDER LINE PRESSURE IN THE PRESENCE OF THE CITY INSPECTOR.
12. THE LOCATION OF TRAFFIC SIGNAL CONDUITS AND LOOP DETECTORS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO EXCAVATION. ANY DAMAGE TO THE EXISTING SYSTEM SHALL BE REPAIRED PER OWNER'S REQUIREMENTS AT THE CONTRACTOR'S EXPENSE.
13. CONTRACTOR SHALL PROTECT EXISTING SEWER HOUSE CONNECTIONS. WHERE INTERFERENCE IS ENCOUNTERED, CONTRACTOR SHALL RELOCATE HOUSE CONNECTIONS PER CITY INSPECTOR.
14. PVC PIPE SHALL BE CLASS 200 PIPE AND HAVE PUSH ON JOINTS EXCEPT AT ALL UNDERCROSSINGS OR WHERE OTHERWISE SHOWN.
15. PIPE JOINTS AT ALL UNDERCROSSING SHALL BE RESTRAINED JOINTS PER PROJECT SPECIFICATIONS.
16. THE CONTRACTOR SHALL REPLACE CURB AND GUTTER DAMAGED BY THE CONTRACTOR'S OPERATIONS IN ACCORDANCE WITH CITY STANDARDS AND AT THE CONTRACTOR'S EXPENSE, TO THE SATISFACTION OF THE CITY INSPECTOR.
17. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY LOCATION AND TYPE OF PIPE PRIOR TO ORDERING ANY MATERIALS AND MAKING CONNECTIONS.
18. THE CONTRACTOR SHALL PROTECT ALL TRAFFIC SIGNALS AND MAINTAIN EXISTING STREET LIGHTS AND TRAFFIC SIGNALS.
19. THE CONTRACTOR SHALL NOTIFY M.T.A. AT LEAST 5 DAYS PRIOR TO CONSTRUCTION IN THE VICINITY OF BUS STOPS.
20. THE CONTRACTOR SHALL SUBMIT CONSTRUCTION PHASING PLANS FOR APPROVAL BY THE CITY.
21. LANE CLOSURE HOURS SHALL BE 9:00 A.M. TO 3:00 P.M.
22. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURE TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR SHOWN ON THIS PLAN.
23. THE CONTRACTOR SHALL PREVENT THE DISCHARGE OF ANY WATER, SAND, MUD, OIL, PETROLEUM OR OTHER POLLUTANTS FROM LEAVING THE CONSTRUCTION SITE AND ENTERING A PUBLIC STREET, STORM DRAIN, OR FLOOD CONTROL CHANNEL. CONTRACTOR SHALL CONFORM TO THE NPDES REQUIREMENTS.
24. CONTRACTOR SHALL OBTAIN A "NO FEE" PERMIT FROM THE CITY OF DOWNEY PUBLIC WORKS DEPARTMENT PRIOR TO STARTING WORK.

CITY OF DOWNEY

CONSTRUCTION PLANS
FOR

DOWNEY LANDING
8" RECYCLED WATER MAIN



VICINITY MAP
N.T.S.

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2 BENCH MARKS CONSTRUCTION NOTES, LEGENDS
3 DRAWING LAYOUT & NOTES

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5 STA 10+31.32 to STA 18+62.84
6 STA 18+77.00 to STA 28+81.4
7 STA 28+81.4 TO STA 28+90.3
8 STA 28+74.24 to STA 47+70.04
9 STA 47+28.61 to STA 54+51.51
10 STA 54+51.51 TO STA 64+02.7
11 STA 64+12.88 to STA 74+61.7
12 STA 74+61.7 to STA 83+61.9
13 STA 82+41.47 to STA 90+36.40

UNDERGROUND SERVICE ALERT
OF SOUTHERN CALIFORNIA
CALL: TOLL FREE
1-800
422-4133
TWO WORKING DAYS BEFORE YOU DIG

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY LIABILITY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

UNAUTHORIZED CHANGES & USES:

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

UNDERGROUND STRUCTURES

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.
CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

REVISIONS

SHEET	DESCRIPTION	DATE	BY	APPROVED

CITY OF DOWNEY

PREPARED UNDER THE SUPERVISION OF: | DATE
R.C.E. NO.
DESIGN BY
CHECKED
RECOMMENDED

DRAWN
CHECKED
RECOMMENDED
WATER JOB NO:
APPROVED BY: DATE: ____ 20__

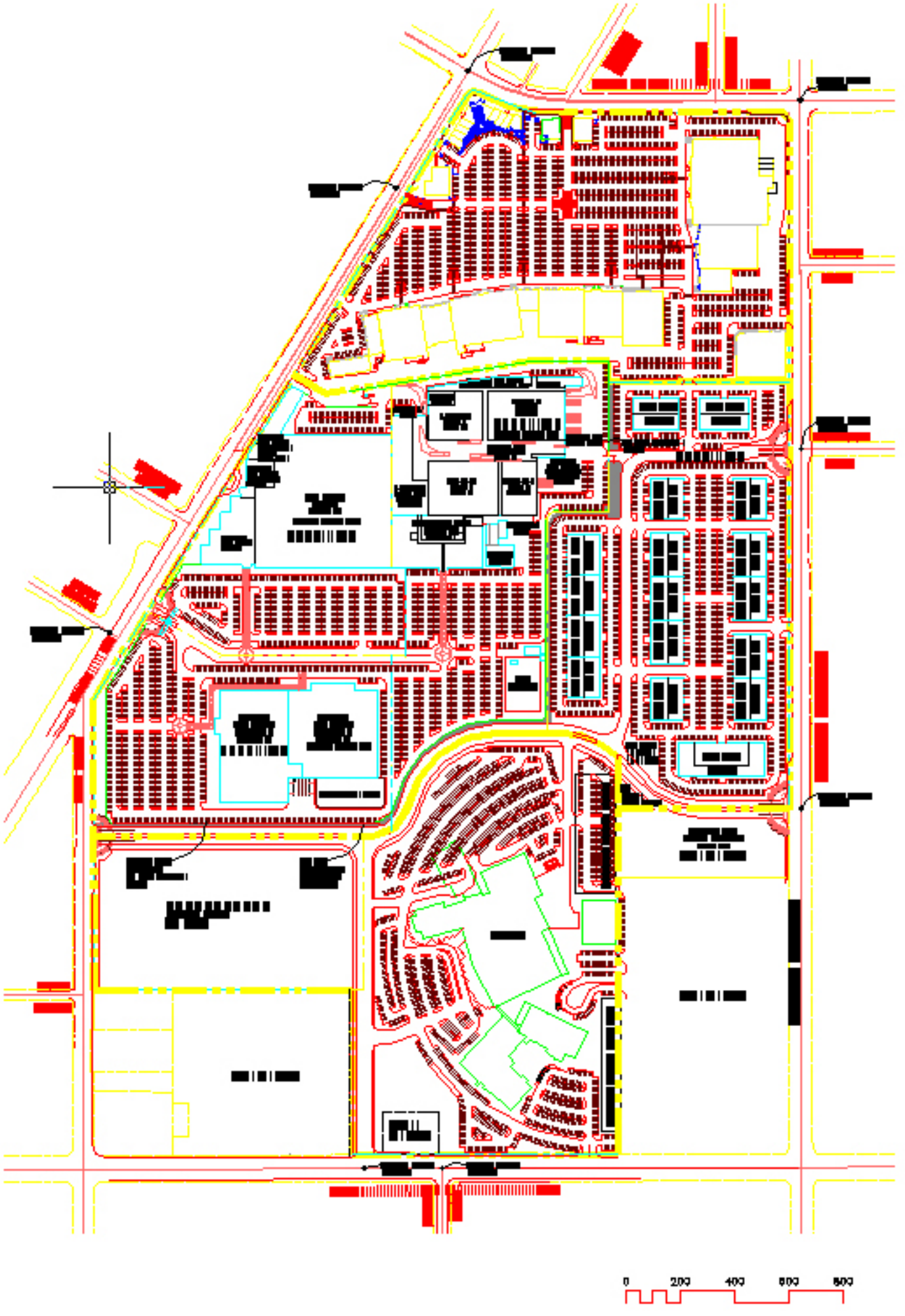
CITY OF DOWNEY

DOWNEY LANDING
8" RECYCLED WATER MAIN

TITLE SHEET

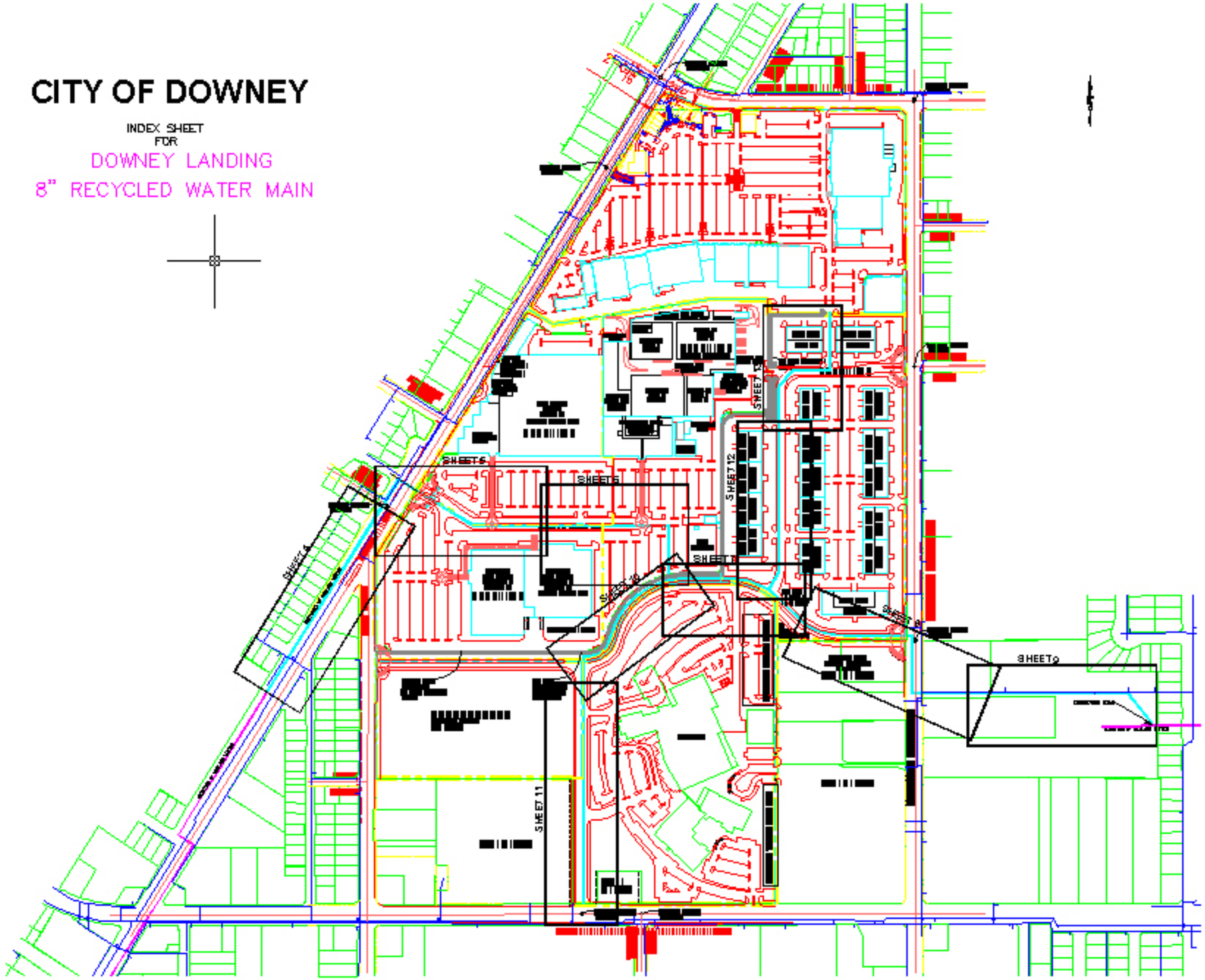
SHEET 1 OF _ SHEETS

DOWNEY LANDING 8" RECYCLED WATER MAIN


0
200
400
600
800

CITY OF DOWNEY

INDEX SHEET
FOR
DOWNEY LANDING
8" RECYCLED WATER MAIN



DOWNEY LANDING 8" RECYCLED WATER MAIN

REVISIONS

NO.	DESCRIPTION	DATE	BY	APPROVED

CITY OF DOWNEY

PREPARED UNDER THE SUPERVISION OF:

R.C.E. NO.

DATE

DRAWN BY
CHECKED
RECOMMENDED

DATE

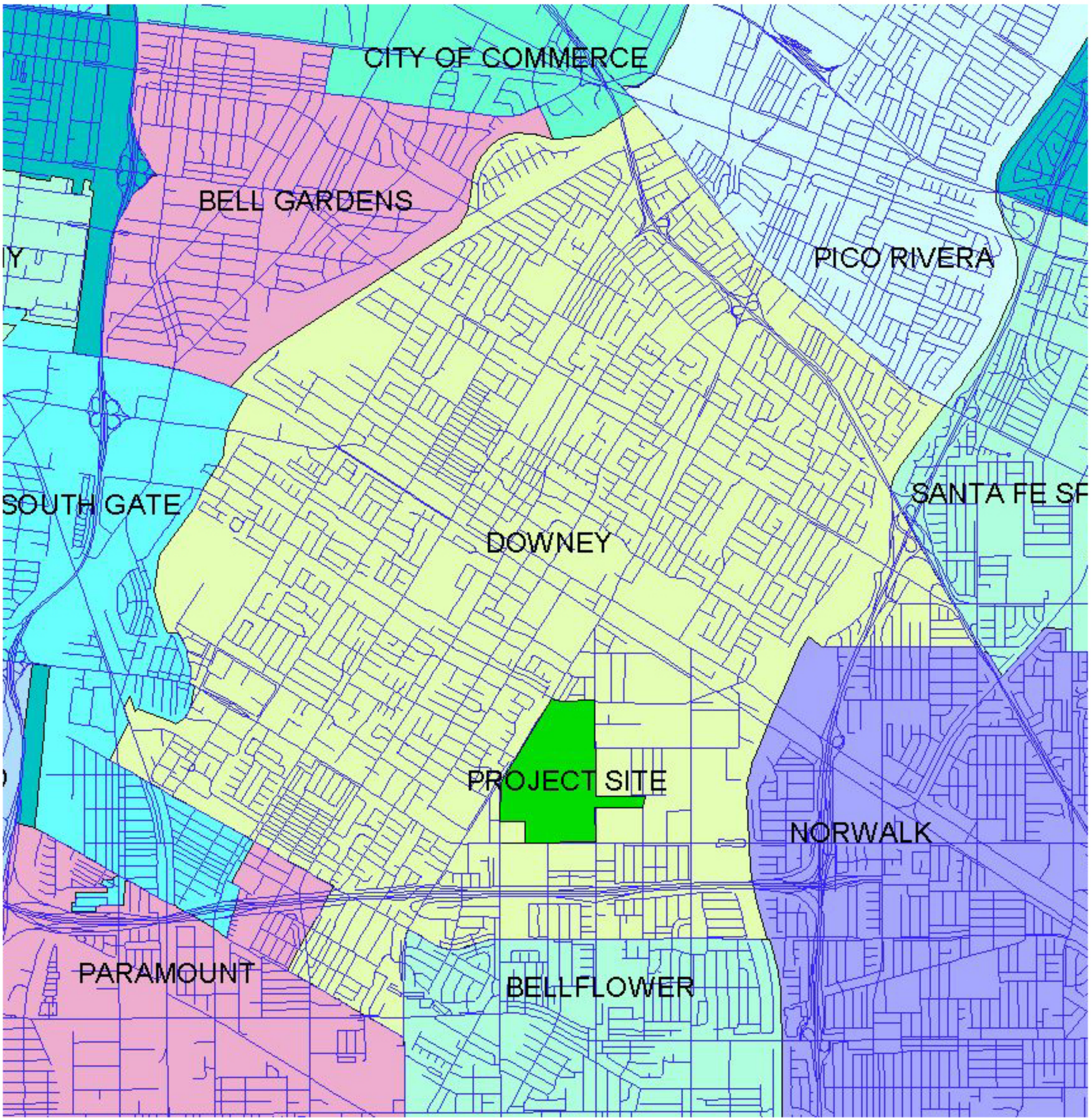
DRAWN
CHECKED
RECOMMENDED
WATER JOB No.

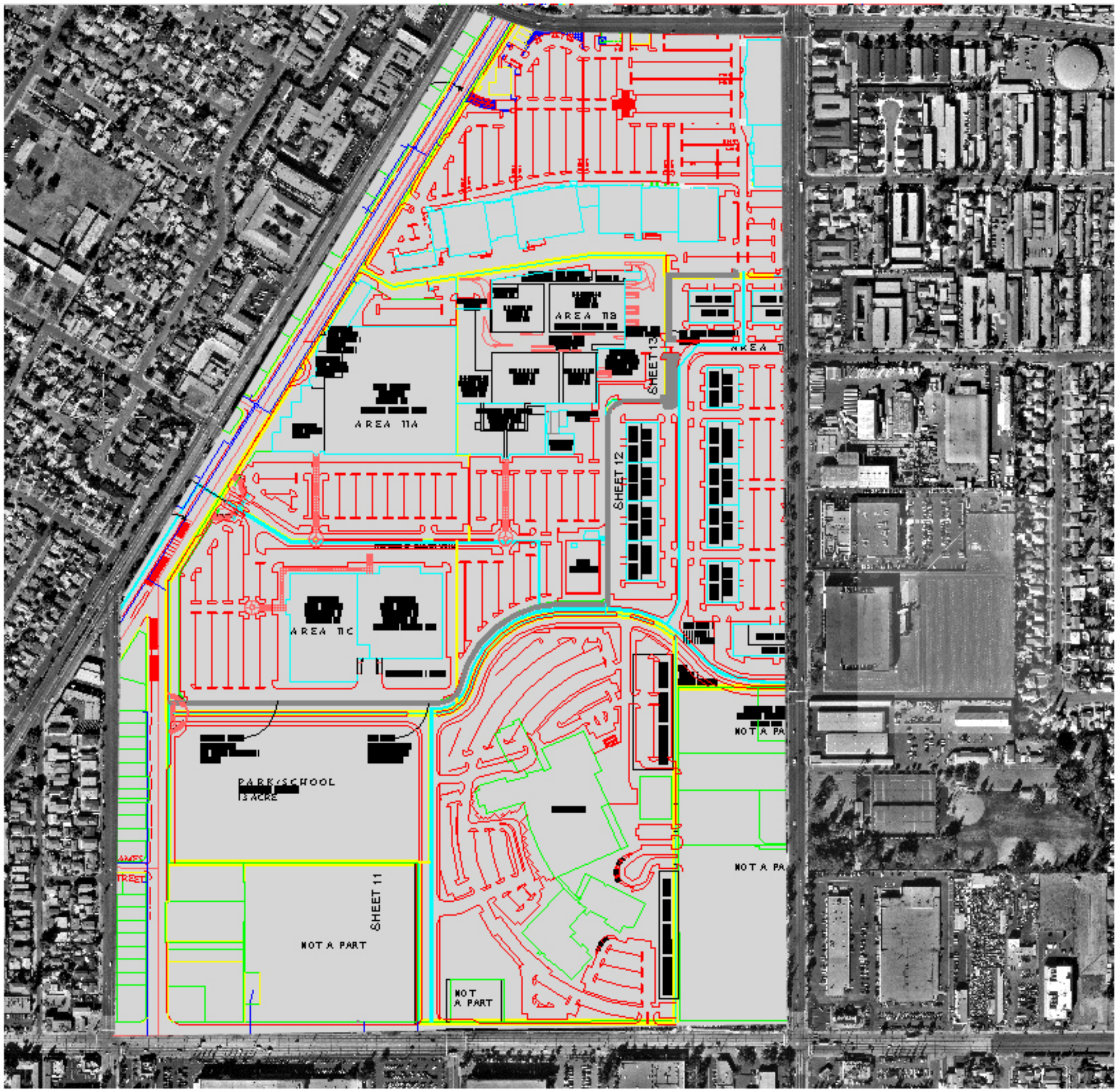
CITY OF DOWNEY

DOWNEY LANDING
8" RECYCLED WATER MAIN

SHEET 3 OF _ SHEETS

DOWNEY LANDING 8" RECYCLED WATER MAIN


CITY OF COMMERCE
BELL GARDENS
PICO RIVERA
SOUTH GATE
DOWNEY
SANTA FE SP
PROJECT SITE
NORWALK
PARAMOUNT
BELLFLOWER


AREA 11B
AREA 11A
SHEET 13
SHEET 12
AREA 11C
PARK/SCHOOL
15 ACRE
NOT A PART
SHEET 11
NOT A PART
NOT A PA
NOT A PA